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Spraying Oils "A"  
and "C."

Neptune Lime Sulphur  
Solution.

Neptune White Spray-  
ing Oil.

Neptune Spray  
Spreader.

Berger's Arsenate of  
Lead (Paste or Powder.)

Genuine Black Leaf 40.

Sicilian Sublimed Sul-  
phur.

Australian Powdered  
Sulphur.

Write for our free  
booklet for full  
details of above  
sprays.

## *Clean fruit Assured—*

*when Neptune Sprays are used*

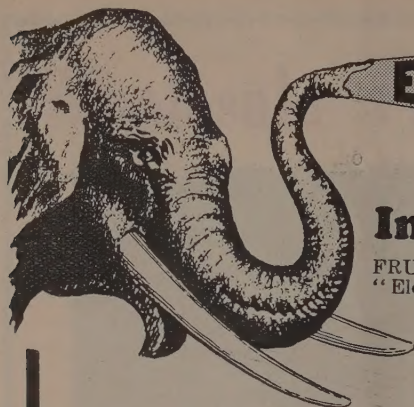
Don't take risks with inferior materi-  
als—always specify the best. Neptune  
spraying preparations are obtainable  
through Agencies and Associations  
all over Australia, or direct from the  
Neptune Oil Company Limited.

# NEPTUNE SPRAYING MATERIALS

NEPTUNE OIL COMPANY LIMITED

Melbourne Sydney Brisbane Adelaide Perth Hobart Launceston





# ELEPHANT BRAND SPRAY

**Insist Upon It!**

FRUIT GROWERS generally have come to depend on "Elephant" Brand Sprays. They find them absolutely reliable, efficient and of guaranteed quality.

**For this Season Use Only  
"ELEPHANT" Brand**

## Apples and Pears will be Scarce

Owing to the ravages of thrip, their will be a short crop of Apples and Pears this season. Every precaution should be taken to guard your crop from CODLIN MOTH by spraying with

## "Elephant" Brand Arsenate of Lead - White Oil

PRICE IS COMPETITIVE — QUALITY STANDS ALONE  
**ONCE USED, ALWAYS USED**

**Remember :—"ELEPHANT" BRAND Stands for Quality**

SUPPORT LOCAL MANUFACTURE

**WRITE FOR PRICES AND PAMPHLET**

## JAQUES PTY. LTD.,

are the Actual Manufacturers and Distributors of "Elephant" Brand Sprays  
Manufacturing Chemists, MADDEN GROVE, BURNLEY, E.1., MELB., Vic.

Telephone: J 2008.

Agents: Seedsmen, &c.

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## Contents for May, 1932.

## Illustrations.

Advertising Australian Fruit . . . . .	235
Geo. Quinn (S.A. Department of Agriculture) . . . . .	237
Loading fruit on ships (improved methods) . . . . .	241
Sydney Harbor Bridge Celebration . . . . .	260
Apple—Tasman's Pride . . . . .	247, 248
J. P. Gibson . . . . .	251
Champion White Leghorn hen . . . . .	271

## Subjects.

Answers to Correspondents . . . . .	257, 8, 9
Apple Varieties Raised in Tasmania (2 illustrations) . . . . .	247, 8
Australian Apple and Pear Production and Export . . . . .	235, 6
Australian Apples in Britain . . . . .	235, 6
Australia's Fruit Champion (Mr. J. P. Gibson) . . . . .	251
California's Orange Exports . . . . .	239
Canned Fruits and Vitamins . . . . .	236
Citrus Crop Prospects in New South Wales . . . . .	252
Citrus Maturity Standards . . . . .	238
Citrus News and Notes . . . . .	238, 265
Cool Stores' Conference . . . . .	272
Death of Mr. William Robson . . . . .	253
Dried Fig Growers' Association . . . . .	243
Dried Fruits . . . . .	233, 240
Fertiliser Requirements of Citrus . . . . .	238
Fruit Crops in Victoria . . . . .	265
Loading and Stowing Fruit for Export . . . . .	241, 2
Market Notes and Prices . . . . .	266, 268
Mid-Murray Notes . . . . .	249
New South Wales Notes . . . . .	239, 40, 252
New Zealand Markets and Prospects . . . . .	242, 3
Orchard Fertilization—Factors Influencing . . . . .	250, 251
Our Open Column . . . . .	255, 7
Planting Citrus Trees . . . . .	239
Planting Fruit Trees . . . . .	261, 264
Poultry Notes . . . . .	270, 271
Powdery Mildew of the Apple . . . . .	245, 6
Queensland News and Notes . . . . .	253, 272
Quinn, Geo.—An Appreciated Horticulturist . . . . .	237
Ranelagh, Tasmania . . . . .	248
South American Fruit Production . . . . .	238
South Australia . . . . .	235, 243
Spraying Fruit Trees in Tasmania . . . . .	246
Sydney Harbor Bridge . . . . .	260
Thrips Investigation League . . . . .	234
Victorian Fruit Marketing Association . . . . .	260
West Australian Citrus Crops . . . . .	238

## INDEX TO ADVERTISERS.

<b>Canning Machines—</b>	
Austral Otis Andabar Cannery Equipment Pty. Ltd., South Melbourne, p. 278.	
<b>Cold Storage—</b>	
Bender & Co., Launceston, Tas., cover H.	
<b>Fruit Buyers—</b>	
Brooke, C. M., & Sons, S. Melb., p. 272.	
<b>Fruit Tree Suppliers—</b>	
Erunning, John, & Sons, Somerville, p. 262.	
Ferguson, F., & Son, Hurstville, N.S.W., p. 264.	
Nobelius, C. A., & Sons, Emerald, Vic., p. 275.	
Picnic Point Nurseries, Bairnsdale, Vic. (C. J. Goodman), p. 262.	
L. P. Rosen & Son, Carlingford, N.S.W.	
<b>Fruit Graders—</b>	
"Lightning" Lightning Fruit Grader Co., 517 Albion-street, W. Brunswick, N.12, Vic., front cover.	
<b>Fumigation—</b>	
Houghton & Byrne, Melbourne, and agents, p. 257.	
<b>Manures, Fertilisers, &amp;c.—</b>	
Sulphate of Ammonia, Nitrogen Fertilisers Pty. Ltd., Melb., p. 258.	
<b>Patent Attorney—</b>	
U'Ren, Geo. A., Melb., p. 272.	
<b>Poultry—</b>	
Karswood Poultry Spice, Agents all States, p. 270.	
<b>Refrigerating Machinery—</b>	
Werner, R., & Co. Pty. Ltd., Richmond, cover iii.	

## Spray Materials—

"Aero" Arsenate of Lead, A. M. Bickford & Sons Ltd., Adelaide, Sth. Aust., p. 256.
"Black Leaf 40," Tobacco By-Products and Chemical Corp., p. 274.
"Blue Bell" Arsenate of Lead, Lime, Sulphur, etc., Blyth Chemicals Ltd., Elsternwick, V., p. 225.
"Cooper" Sprays, William Cooper & Nephews (Aust.) Ltd., Sydney, and agents, back outside cover.
"Elephant" Brand, Jacques Pty. Ltd., Burnley, V., p. 232.
"Gargoyle" Spraying Oil, Vacuum Oil Co. Pty. Ltd., 90 William-street, Melbourne, p. 227.
"Shell Spraying Oil," Shell Co. of Australia Ltd., Melbourne, p. 251.
Lion Brand, Orchard Sprays Pty. Ltd., 9 Cremorne-street, Richmond, p. 269.
"Plane" Brand, Chemical Dusts, N. N. McLean Pty. Ltd., Melbourne, p. 276.
"Vallo" Sprays, Victor Leggo & Farmers, p. 230.
"Volck" H. C. Pannifex & Co., Melb., and agents, p. 259.
"Neptune" Spraying Oils, Neptune Oil Co. Ltd., Richmond, Vic., and all States, p. 231.
<b>Orchard Implements—</b>
Oliver Ploughs.—Malcolm Moore Ltd., Williamstown-road, Port Melbourne, p. 257.
<b>Spray Pumps and Guns—</b>
Edison, Sutherland & Seward Pty. Ltd., Sth. Melb., p. 265.
Excelsior Supply Co. Ltd., p. 269.
Russell & Co., p. 270.
Webster, A. G., & Sons Ltd., Hobart, Tas., p. 271.
<b>Strapping Fruit Cases—</b>
Gerrard Wire Tying Machines Co. Pty. Ltd., W. Melb., p. 255.
Port of Manchester, Capt. W. J. Wade, Sydney, p. 269.
Interstate Shipowners, p. 273.
<b>Tree and Stump Pullers—</b>
Trewhella Bros., Trentham, p. 279.
"Digger," Quick Mfg. Co., Stumping Jacks, etc., p. 275.

**Mildura Co-operative Fruit Company.**—Substantial progress has been made by Mildura Co-operative Fruit Company. At the recent annual meeting of shareholders it was shown that an improvement in the financial position by £66,125 took place during the past year. This was accounted for by the rapid sales of the 1931 crop of dried fruit. The meeting was presided over by the chairman of directors (Mr. A. L. Johnstone).

Tree fruits were all cleared up, and the carry over disposed of. As the 1932 crop will be a short one, there should be very little necessity for export.

The company's citrus pack for the year was 71,000 cases, and in addition, 4,630 cases were despatched to market for growers who packed their own citrus.

The Mildura Co-op. Fruit Co. sent 4,003 cases of fresh Grapes to Melbourne, this fruit being practically all packed in cartons and sold to the refreshment stalls of the Victorian Railways. Grapes are being supplied through the same channel this season.

A dividend of 7 per cent. on share capital was declared, and interest at 7 per cent. on fixed deposit was approved of.

The report and balance sheet were adopted on the motion of Mr. A. L. Johnstone and Mr. W. Burrows.

**Red Cliffs Co-operative Packing Co. Ltd.**—At the annual meeting of the Red Cliffs Co-operative Packing Co. Ltd. held recently, Mr. F. W. Hammet occupying the chair, a dividend of eight per cent. and a rebate of £1/10/- per ton was announced.

The following are the tonnages of Currants, Sultanas, Lexias, and Walthams packed during the 1931 season:—Currants (745 tons), Sultanas (3,796), Lexias and Walthams (739), making a total of 5,280 tons.

The packing charges for the 1932 season were fixed at £4/10/- per ton for Currants, Sultanas, Lexias, and Walthams, and the charge for wiring 4/- per ton, making in all £4/14/- per ton.

There was a long discussion on the sweat box problem, and despite the recent packers' agreement to make a hiring charge for boxes this season, shareholders expressed disapproval of the proposal and gave the directors an instruction in the form of another system of control.

The retiring directors were re-elected unopposed.



## THRIPS INVESTIGATION LEAGUE.

## Success of Financial Campaign Is In Sight.

THE SUCCESS OF THE CAMPAIGN to raise sufficient funds to conduct the specialised thrips investigation is now assured.

The amount collected to date is £529/17/-, with donations yet to come in from several of the Australian States. The objective is £1,200 per annum for three years. Now the Commonwealth Bank has decided to make a donation of £400 to the first year's investigation, provided that funds up to £800 are collected from other sources.

Briefly, the Council for Scientific and Industrial Research proposes to co-ordinate the work already in hand and to concentrate on finding control measures for thrips.

Both the C.S.I.R. and the Waite Research Institute are paying the salaries of their entomologists and providing much equipment. The additional £1,200 per annum for three years is needed to pay for the services of a full-time field entomologist, a chemist later if necessary, also to pay travelling expenses and to provide some additional essential equipment.

The C.S.I.R. is co-operating with the Departments of Agriculture in the several States, and is co-ordinating all the efforts.

There is a general feeling in the industry that this request for £1,200 per annum is a reasonable one, and special efforts are being made to raise the necessary finance.

Because of the success of the C.S.I.R. in finding control measures for other obscure pests and diseases, there is a reasonable hope that the investigation into the thrips menace will also be successful.

Donations to date are as follows (mostly per annum for three years):—

New South Wales Fruitgrowers' Association, £100; Victorian Fruit Marketing Association, £50; H. G. Colombe, £25; Gippsland Fruit Marketing Association, £10; Parnham Pty. Ltd., £10; C. H. Tutton Pty. Ltd., £10; Gerrard Wire Tying Company, £10; F. Cave Pty. Ltd., £10; I. F. M. Company, £10; J. B. Mills & Company, £10; Narre Warren Cool Store, £8; Mason, Fifth & McCutcheon, £7/7/-; N. N. McLean Pty. Ltd., £5; J. W. Bailey, £2; Australian Fruit Cannery's Association, £50; John Sanderson & Company, £10; H. Jones & Co., Hobart, £5/5/-; James Allan (National Rose Society), £5; Somerville Fruitgrowers' Association, £3/5/-; South Australian Fruit Marketing Association, £50; Nitrogen Fertilisers Pty. Ltd., £10; John Sharp & Sons, £1/1/-; F. R. Mellor, £10; Myer Emporium Ltd., £10/10/-; Melbourne City Council, £25; Airedale Orchards, Red Hill, £5; A. Hamilton, Red Hill, £5; J. P. Sennitt & Son Pty. Ltd., £1/1/-; Victorian Stevedoring Company, £10/10/-; C. M. Brooke & Sons, £2/2/-; F. C. Pyke, £5; Lightning Fruit Grader, £5; Metropolitan Ice & Fresh Food Co., £2/2/-; Aust. Producers' Wholesale Co-op. Fed. Pty. Ltd., £5/5/-; T. Stott & Sons, £1; David Hyland, £1/1/-; Commonwealth Fertilisers and Chemicals, £10/10/-; E.S. & A. Bank Ltd., £10/10/-; H. V. McKay, Massey Harris, £5/5/-; Co-operative Box Company, £5; Bunyip Orchardists Pty. Ltd., £2/2/-; City of Box Hill, £1/1/-; Blackburn Cool Stores, £5.

Additional funds would be welcomed. This is the first time that a big Australian-wide campaign has been launched against thrips. Fruitgrowers, vegetables growers and flower lovers, manufacturers, and all connected with commercial horticulture, should rally to the call for funds.

Now is the time to act. By contributing now, the other

sums mentioned become available. A letter is to hand from the C.S.I.R., stating that they are all ready to go ahead, and are awaiting word as to the financial basis.

Will readers throughout Australia please accept this as a direct appeal and send donations in promptly to the Secretary, Mr. R. E. Boardman, Box 1944, G.P.O., Melbourne.

## AN AMERICAN'S VIEW OF AUSTRALIA.

## Cannot Legislate Prosperity.

## Vital Religious Basis Essential.

An interesting letter was recently received by Mr. E. Meeking, Victorian Department of Agriculture, from an American fruit packing executive—a man familiar with conditions in Australia.

Extracts of the letter are as follows:—

I have been following with some interest the political and economic conditions facing Australia. I imagine that distance is a considerable aid to obtaining the proper perspective. I have a feeling that many of the politico-economic dogmas so cherished by some of your Governments are due for a record shock before you get back on a sound economic basis. I don't know how serious it looks to you, but I have a hard time conceiving of New South Wales seceding from the Federation or of the Federal Bank jeopardising its position by the issuance of fiduciary money.

There is a widespread feeling in this country that conditions are on the up-grade. There isn't so much of tangible character to base this upon, but, nevertheless, it is very prevalent. Probably man's natural optimism is reasserting itself. This will probably be as large a factor as anything in restoring conditions. Personally, I have not been very happy over the efforts of the Farm Board. I believe that political pressure has caused them to make some unsound experiments.

The belief that you can legislate prosperity is by no means confined to any one nation or any one class of people within the nation.

But we do live in stirring times, don't we? I often wonder how many of the political and economic formulas almost universally accepted at the beginning of this century will survive even the half century period. My own conviction is that these periods of chemicalisation are salutary, and that both the underlying cause and the positive remedy for them is religious. In other words, I can see no permanent remedy for such problems other than in a higher concept of man's relationship to God and to his fellow man; nor can mankind find a satisfying abiding place short of this higher concept.

## PURE SEEDS.

At a recent producers' conference at Gympie (Queensland) it was decided to ask the Department of Agriculture to formulate a scheme whereby grass seed and legumes could be made available in sealed and certified bags from fields inspected and registered by Departmental officers.

During the discussion it was stated that grasses which were heavy seed bearers were not the best for fodder, as the seed carried away a large proportion of the nutriment. New Zealand White Clover was better than ordinary Clover, as it was not a heavy seed bearer.



# Australian Apple & Pear Production & Export.

## Big Advertising Campaign in England.

TO CELEBRATE THE OPENING of the Australian Apple season in England, a big streamer bearing the words, "Apples from Australia—British to the core," was displayed on the R.M.S. "Mooltan" on its arrival at London. The Commonwealth Attorney-General (Mr. Latham), the Australian High Commissioner, and the Agents-General were among a large gathering, including the principals of fruit importing firms, at a luncheon given by the P. & O. Co. aboard the "Mooltan."

Mr. Latham stressed the importance of the Ottawa Conference. Australia was prepared to give as well as take.

Mr. Greenwood, on behalf of the Fruit Trades' Federation, thanked the Commonwealth for providing a fair advertising fund.

### APPLES AND PEARS—1931/32 SEASON.

#### Production and Export Figures.

THE PRODUCTION OF APPLES AND PEARS in Australia this season will now reach 8,368,000 bushels, representing 7,120,000 cases of Apples and 1,248,000 cases of Pears, states the Minister for Commerce (Mr. C. A. S. Hawker).

In Tasmania the conditions have been very favorable to production, and the result has been a splendid crop of 4½ million bushels of Apples. The climatic conditions were also favorable in Western Australia, and in most varieties of Apples there were heavy crops. The South

Australian yield was fair, but in consequence of the damage by thrips the crops in Victoria and New South Wales were rather light.

The export season is at present in full swing, and very large shipments are now going forward, particularly from Tasmania and Western Australia. It is estimated from the quantities already exported and those still to be shipped, that the total exports for the season will be 4,288,360 cases of Apples and 265,250 cases of Pears. This represents an increase of almost 1,000,000 cases over the quantities exported last season.

The following table shows the estimated production of Apples and Pears in the various States, and also the total quantities which it is estimated will be exported from those States during the current season:—

	Production (cases).		Exports (cases).	
	1931-32.		1931-32.	
	Apples.	Pears.	Apples.	Pears.
Tasmania ..	4,250,000	121,000	3,100,000	65,000
Victoria..	875,000	750,000	130,300	146,150
S. Australia ..	850,000	170,000	411,800	7,200
W. Australia ..	760,000	90,000	627,260	41,400
N.S. Wales...	245,000	105,000	10,000	5,000
Queensland ..	140,000	12,000	9,000	500
Total..	7,120,000	1,248,000	4,288,360	265,250



Advertising Australian fruit in England. This was one of the functions at the opening of the Australian Apple season in London in 1930. Left to right: Sir Granville Ryrie, High Commissioner; Hon. J. H. Thomas, M.P.; Brig.-Gen. Sir Wm. Birdwood.



Shortly before the arrival of the first shipment of Australian Apples and Pears, the Director of Australian Trade Publicity in Great Britain (Mr. A. E. Hyland) launched an intensive publicity and advertising campaign to assist the sale of these products, and this campaign will be continued during the export season. In previous years the fund for advertising purposes was obtained by means of a levy on Apples and Pears, which was collected from handling agents in Great Britain by the Federation of Fruit and Potato Traders' Associations. This year, however, a levy of 3d. per case is being collected in Australia by the Department of Commerce on all Apples and Pears exported. The resultant fund will be supplemented by a contribution from the Fruit and

Potato Traders' Federation and a small contribution by the Commonwealth Government.

Reports now being received from London show that Australian Apples are arriving in good condition generally. In consequence of the heavy supplies and keen competition the market has been somewhat dull. It is to be hoped, however, Mr. Hawker said, that the prices realised, coupled with the exchange premium will, when all charges have been deducted, be satisfactory to growers.

The activity of the Australian Apple and Pear Export Council in connection with the collection and administration of the advertising fund, is greatly appreciated by growers and traders.

## The Vitamin Contents of Canned Foods.

### Scientific Tests Prove the Rich Vitamins in Canned Fruit.

In noting some of the new advertising decided upon by the United States organisation, the National Canners' Association, I was certainly taken with recent advertisements in the "Blue Streak" edition of the San Francisco "Call Bulletin," of Tuesday, March 15, page 13 covering the N.C.A. advertisement, and page 12 the full-page advertisement of the California Packing Corporation, well-known manufacturers of the "Del Monte" brand, featuring "vitamin-protected" foods, writes Mr. A. G. Caldwell, Export Manager, Food Machinery Corporation, San Francisco, California, U.S.A.

I recall my visit to Australia in 1926, and that it seemed to be the prevalent idea throughout Australia from what I could gather, that in the canning of foods the valuable vitamins were lost.

We, of course, have known here, and undoubtedly Australia has been largely educated to know that this is an erroneous idea, one of the greatest developments in this line being the work of the U.S.A. "Navy Kitchen" at San Diego, California. It has always been of vital interest to the sailors and officers on their various cruises to know that they were getting the right kind of nourishment.

You will note that the California Packing Corporation, who maintain their own laboratory, have shown in which canned food products the various vitamins A, B, C and D are contained, and it occurred to me that this information would be of interest to readers of the "Fruit World."

The following is an extract from the Californian Packing Corporation's advertisement referred to by Mr. Caldwell:—

#### Facts About Vitamins.

The term "vitamins" designates a group of substances distinct in their function from proteins, carbohydrates, fats and mineral salts.

They have no food value in themselves, they do not in themselves supply energy or build tissue. Yet they are absolutely essential for growth and health. Without them, our bodies cannot properly assimilate or use the foods we eat. Vitamins are the "vital spark" which keeps the human engine running smoothly.

Following are some of the common food sources of the vitamins most important in your diet:—

#### Vitamin A.

Aids growth; strengthens resistance to colds and similar infections. Shown by food authorities to be present in:—Asparagus, Carrots, Cherries, Peas, Pineapple, Prunes, Pumpkin, Salmon, Sauerkraut, Spinach, Strawberries, French Beans, Sweet Potatoes, Tomatoes, Tomato juice.

#### Vitamin B.

Promotes nerve health and aids appetite. Shown by food authorities to be present in:—Apples, Asparagus, Beets, Carrots, Cherries, Corn, Grapefruit, Lima Beans, Peaches, Peas, Pineapple, Prunes, Raisins, Salmon, Sauerkraut, Spinach, Strawberries, French Beans, Sweet Potatoes, Tomatoes, Tomato juice.

#### Vitamin C.

Prevents scurvy; most easily destroyed of all vitamins. Shown by food authorities to be present in:—Apples, Carrots, Corn, Grapefruit, Lima Beans, Peaches, Pears, Peas, Pineapples, Pumpkin, Raspberries, Sauerkraut, Spinach, Strawberries, French Beans, Sweet Potatoes, Tomatoes, Tomato juice.

#### Vitamin D.

Aids bone growth; prevents rickets. Especially important in child feeding. Particularly good sources of this vitamin are:—Canned fish, salmon, sardines and tuna.

### DEFERRED DUTY ON TIN PLATE.

The Australian Fruit Canners' Association recently asked the Minister for Customs to consider further postponing the deferred duties on plain tinned iron and steel plates and sheets for a period of three years. The Minister has replied stating that he has further postponed the operation of the deferred duties in question until October 1, 1932, that representations made have been noted and will be fully considered when the question of further postponing the duties is next referred to the Tariff Board for report.

### BROADCASTING PROGRAMMES.

Subjects of interest to fruitgrowers will be broadcast by officers of the Victorian Department of Agriculture over 3LO as under:—

May 5.—Orchard Drainage, F. M. Read, M.Agr.Sc.

May 17.—Control of Principal Orchard Diseases, A. A. Hammond, Acting Chief Orchard Supervisor.

### WESTERN AUSTRALIA.

#### Record Apple Crop.

The Apple crop in the Mount Barker district this year is expected to be a record one. The district is sending from 300,000 to 320,000 cases of Apples overseas. Most of the shipments are going through Albany.



## AN APPRECIATED HORTICULTURIST.

George Quinn, Chief Horticultural Instructor, South Australian Department of Agriculture.

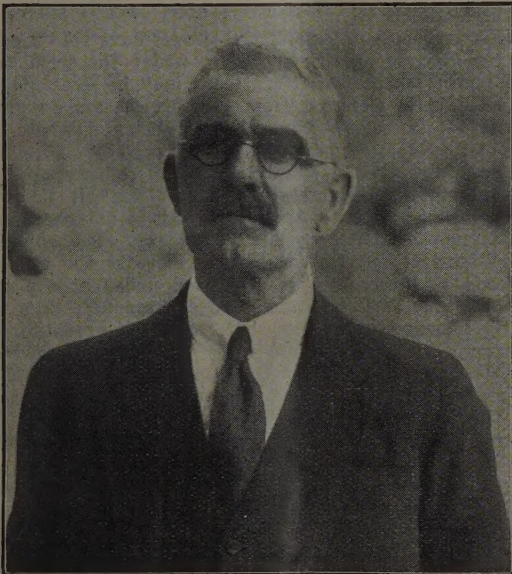
## Valuable Service Rendered to State and Commonwealth.

## Author of "Fruit Tree and Grape Vine Pruning."

George Quinn, the author of "Fruit Tree and Grape Vine Pruning," is an Australian of the second generation, having been born in South Australia upwards of 60 years ago.

Passing from a public school at 16 years of age, he at once began his training in practical horticulture, but soon realised that further exact knowledge was essential to a more accurate understanding of the principles underlying the practice of the profession he had chosen.

Advantage was taken therefore of the courses of study offered by the then newly established Technical Schools, and later of such appropriate courses in natural science as were available in the University to students who had not the time and opportunity to graduate.



Mr. Geo. Quinn, Horticultural Instructor, South Australian Department of Agriculture.

These latter studies were undertaken between periods of practical engagement in the work of the orchard, the plant nursery and the more exact training available in a botanic garden.

In the last decade of the 19th century, most of the Governments of the Australian colonies began to awaken to the possibilities of stimulating commercial fruit production within their respective borders—with the ultimate object of adding another primary product to their list of overseas exports. They began to cast around for men with the most appropriate training to initiate such official membership as was deemed desirable for the advancement of the industry. Such men had not only to be equipped with a knowledge of fruit culture and fruit technology as pursued in other countries more advanced

in the work, but were required to be conversant with the latest excursions by American and European investigators into the realms of economic entomology and plant pathology in their bearings on the operations of the orchardist, vigneron and market gardener.

In 1894 the writer of this book, whilst still in the mid-twenties, was called upon to initiate these activities—though on modest lines at first—in South Australia.

Without interruption, he has been engaged ever since in guiding horticulturists, watching and safeguarding their special interests and advising the political head of the Department on all phases of procedure deemed to further the horticultural interests within the State. Since this work was inaugurated the area under fruit trees, Grape vines and other horticultural products generally, has increased by many thousands of acres in South Australia, and the standard of the technique followed by the average grower in these branches of production may be claimed to equal that achieved in any of the newer countries in temperate regions of the world.

From time to time during the thirty-eight years over which the author has held the principal position in the horticultural section of the S.A. Department of Agriculture, he has travelled throughout most of the fruit-growing districts in every State of the Commonwealth and New Zealand attending conferences of fruit growers or State officials and studying in detail the methods of fruit production and manipulation followed in each particular district.

Whilst it is generally conceded that these unique opportunities have been the means of enabling the writer to acquire a first-hand knowledge of Australasian fruit culture afforded to few, it is probably through his published studies in the realms of pruning practices as followed in this and other countries which have made his work more widely known, not only in Australasian horticultural circles, but amongst fruit growers who are engaged in commercial fruit production in similar climatic zones in South Africa and other English-speaking countries.

When the Commonwealth required inaugurated control of plant quarantine in relation to overseas imports, and likewise of all exports of fruits and plant products shipped abroad under the Federal Commerce Act, the author, in company with similarly occupied officials in other States, was called upon to carry out these duties in his home State, and has continued to supervise this work ever since.

In this respect he is the only official remaining in active service, representative of the group of State officers who, about a quarter of a century ago drafted the original regulations under the Commonwealth Quarantine and Commerce Acts dealing with fruits and other plant products.

\* \* \* \* \*

"Fruit Tree and Grape Vine Pruning" is the title of the standard work of which Mr. Quinn is the author. This valuable handbook is written for fruit and vine growers, working under the climatic conditions prevailing in temperate Australia. The seventh edition has just been published by Robertson & Mullens Ltd., Melbourne. Copies also obtainable from "The Fruit World," Box 1944, G.P.O., Melbourne. The price is 5/-, postage 3d. extra.

## Not That Old.

First Novice Golfer: "Are you the man who went around this course in 76?"

Second Ditto: "Certainly not. I was born in '98."



# Citrus News and Notes.

## CITRUS MATURITY STANDARDS.

The standards for citrus fruits are to be rigidly enforced during the coming season. The Superintendent of Horticulture, Mr. J. M. Ward, states that the Department viewed with concern the presence of some sour and dry Oranges on the market, and intended to prohibit the sale of such fruit. Small consignments of this season's Oranges were now being marketed, and tests were being made.

The Fruit and Vegetable Act regulations provided that not more than 23 cubic centimeters of N/10 (decinormal) soda solution were required to neutralise the acidity contained in ten cubic centimeters of Orange juice.

At a meeting of interstate departmental officials held recently in Melbourne, it was decided to recommend that the present regulations be amended to provide that Navel Oranges pass a test of 26 cubic centimeters of decinormal soda solution, and Oranges other than Navels pass a test of 30 cubic centimeters of soda solution.

Briefly, the test meant that the acidity in 10 cubic centimeters of juice should require not more than 26 or 30 cubic centimeters (as the case may be) of decinormal soda to neutralise it. Common Oranges (seed types), whether grown in Victoria, New South Wales, Queensland, South Australia or West Australia, Australian Navels grown in New South Wales, Victoria and South Australia, and Washington Navels from late districts should not be marketed at present. Washington Navels of the required maturity were available from such districts as Mildura, Curlwaa and Renmark.

There were also plenty of Valencia Late Oranges still on the market. Pending the alteration of the regulation a tolerance in accordance with the proposed amendments would be allowed. It was a practice of some quarters to artificially color Orange fruits by ethylene gas. The fact that they were of good color was not necessarily a guarantee that the fruit was sufficiently mature to pass the required test.

Regarding the sale of dry Oranges, no Oranges will be permitted to be marketed unless they contain more than 15 per cent. by weight of extractable juice. After allowing the tolerance referred to the regulations are to be strictly enforced as from May 1.

## FRUIT PRODUCTION IN SOUTH AMERICA.

### Oranges and Apples Compete with Australia.

**T**HE RAPID INCREASE of Orange production and export from Brazil is dealt with in a report from the South Australian Trade Commissioner in London to the General Manager (Mr. G. A. W. Pope), Government Produce Department, South Australia. On this subject the Trade Commissioner says this rapid development of export must be viewed with great seriousness by Australian and South African producers of citrus fruits, because it provides another very serious competitor in the U.K. for a market already very well catered for by Spain, California, and South Africa, and which also might reasonably be looked upon as a possible outlet for Australian surplus.

In addition to Oranges, Grapefruits have been planted extensively.

## Apples and Pears

are now grown in very large quantities, and an export market must be looked to. The Apple trees came almost exclusively from Australia. The railway companies, with British capital, have planted areas with fruits, and are selling ready-made orchards, thus pioneering a new industry. The quality of the fruit is excellent.

## FERTILISER REQUIREMENTS OF CITRUS.

**T**HE FERTILISER REQUIREMENT OF CITRUS trees on the Murrumbidgee irrigation areas has been studied at the Griffith Research Station both by carefully laid out field experiments at the station, and by experiments on established orchards. The experiments on established orchards have given valuable information in a relatively short time, whilst it is expected that those at the research station will give more detailed information, but from the nature of the trials some time must elapse before the complete information that they will yield is available.

The experiments on established groves have shown conclusively that, generally speaking, under the local soil and climatic conditions, citrus trees may be expected to respond both in vigor of vegetative growth and in yield of fruit, to nitrogenous manures such as sulphate of ammonia.

The experiments also showed that local soils apparently contain sufficient available phosphates for all the requirements of the citrus tree, so that it is not necessary to add superphosphate to citrus orchards. The application of superphosphate will greatly increase the growth of weeds, and these weeds, ploughed under at the appropriate time, will be valuable green manure, thus indirectly benefiting the tree; but, with the exception of the growth of green manure crops, no benefit is derived from the application of superphosphate to the soil. Evidently citrus trees are able to absorb the phosphoric acid from the soil sufficiently rapidly for their needs, and it is the amount of available nitrogen in the soil that limits their growth.

This work, in determining the manurial requirements of citrus trees for local soils, has resulted in placing the fertiliser practice of the areas, so far as citrus trees are concerned, on a much sounder basis than formerly, and a very large increase in the sale of sulphate of ammonia has resulted. For example, the sales from the Griffith Producers' Co-operative Co. Ltd. have been as follows:—1924, 5 tons; 1926, 10 tons; 1927, 140 tons; 1929, 133 tons. This large increase in the use of sulphate of ammonia following on the investigations carried out by the research station, has undoubtedly caused a very great increase in the yield of the trees of the district, and has been of great monetary value to the citrus industry.

## CITRUS CROPS IN W.A.

Dear Sir,—The Orange and Mandarin crop in Western Australia this year will be lighter than last year. My estimate is:—

Oranges . . . . .	205,000 bushels
Mandarins . . . . .	10,000 bushels
and in the case of Lemons, the same as last year—58,000 bushels.—Geo. W. Wickens, Superintendent of Horticulture.	



## PLANTING CITRUS TREES.

The following is a summary of an address recently delivered at Berri, S.A., by Mr. F. R. Arndt, South Australian Horticultural Instructor:—

The soils best suited for the growth of citrus trees in the Murray Valley may be briefly described as follows:—

1. The ideal citrus soil should consist of a rich sandy loam of a depth of 4 ft. to 5 ft., and in selecting land for the growing of citrus trees the quality and depth of the soil is the first thing that should be taken into consideration.

2. The subsoil should also be of a loose, and fairly porous nature, without bands of hard pan or stone running through it. The nature of the subsoil should be ascertained by boring to a depth of at least 7 feet.

3. The land should be free from injurious salts. To test this the soil brought up by the soil augur should be chemically analysed.

4. The citrus grove should preferably be situated on sloping ground to allow for water and air drainage.

**Seville Orange Pulp for Canada.**—It is probable that Australia will send Seville Orange pulp for marmalade to Canada this year. The Secretary of the Federal Citrus Council (Mr. J. A. Parkes) is endeavoring to complete this business.

**California's Orange Exports.**—The Commonwealth Department of Markets advises that according to American reports, the competition which Californian Oranges meet in the European markets is increasing by reason of the fact that exports from South Africa have increased from 503,000 boxes in 1924 to 1,901,000 boxes in 1930, while those from Brazil have also increased from 315,000 boxes in 1924 to 893,000 boxes in 1930.

It is also stated that conditions for the coming years are likely to be less favorable to a further substantial increase in exports than the average of recent years, principally due to the fact that Canada, which has been California's most important export market, has placed a duty of 75 cents a box on Oranges imported from U.S.A.

**Sunshine Farm Implements.**—From the Sunshine Harvester Press we have received a copy of a new 100-page catalogue of Sunshine farm implements. It is profusely illustrated, having 18 color plates of farm scenes showing cultivating, seeding, and harvesting machines at work, in addition to many colored plates of machines and implements.

The "Sunspray" power spraying plant consists of a Sundex 2 h.p. petrol engine and Sunshine power pump, mounted together on a sturdy, seasoned hardwood transport, which carries a vat of 100 gallons capacity.

Also of interest are the Sunglow low wheel cultivator and the Sunjunior one-horse orchard cultivator.

Any fruitgrower or farmer may obtain a copy post free by sending his name and address to the Sunshine Harvester Works, Sunshine, W.20, Vic.

Katie: "Daddy, if I planted this pip, do you think an Apple tree would grow?"

Daddy: "Oh, yes; I expect so."

Katie: "Well, that's funny, 'cos it's an Orange pip."

## New South Wales.

## FIELD DAY AT GRIFFITH, N.S.W.

The recent field day held at the Commonwealth Research Station, Griffith, N.S.W., created much interest, the idea of these field days being much appreciated.

Visitors were conducted round the farm, special points of interest being the meteorological station, the soil column, methods of soil sampling, the spray irrigation plant, and the laboratory apparatus and buildings.

The whole of the station's activities were reviewed by the officer in charge, Mr. Eric S. West, the subjects dealt with being:—Fertiliser requirements of citrus, green manure investigation, soil moisture investigations, soil column, soil mulch, and soil moisture conservation, cultivation and irrigation practices, phosphate fertiliser experiment with Lucerne, frost protection of citrus, and the effect of Mallee on incidence of fruit.

In co-operation with Mr. Barnard, Botanist of the Division of Plant Industry, the question of alternate cropping of Valencias is being investigated. The field work at present includes studying the effect of adding nitrogen fertilisers at different times, and the effect of thinning the fruit at different times.

## NEW SOUTH WALES.

**Orange.**—The recent fruit show was successful. Apples of excellent quality were shown:—Delicious, R.B., Granny Smith, Jonathan, London Pippin, Tasma, etc.

Among the Pears were noted first-rate specimens of B. Bosc, Winter Nelis, Josephine, Packhams, B. de Cap, Howells, etc. There was also a splendid collection of Grapes.

The prize winners included Messrs. E. T. Hicks, R. W. Scott, J. B. Coutts, W. J. Nancarrow, P. H. Harbutt, H. C. Gantrill, R. W. Ray, A. G. Rymills, A. Offner E. Griffiths, J. A. Casey, N. Griffiths, N. Offner, T. Millgate, F. J. Bohringer, O. H. Collins.

**Peaches in N.S.W.**—The Department of Agriculture, in its report for March, states that the late Cling Peach crop on the Murrumbidgee Irrigation Area turned out better than was at first estimated. Approximately 800 tons have been received at the State Cannery, Leeton.

## WINDFALL FRUIT.

## Sydney Suburban Resident Fined.

A case of special interest to residents in the suburbs of Sydney, who may happen to possess a few fruit trees in their gardens, was heard at North Sydney Police Court on March 11, when Dr. Hedley Terrey, of 67 Stanhope-street, Killara, was fined £3 with 8/- costs, for a breach of the Plant Diseases Act.

The information laid by Inspector G. W. Hitchcock set forth that defendant failed to perform a duty imposed by proclamation in the Government "Gazette" of November 6 last, to collect all windfall Pears and Peaches at least once every three days, and either to boil them or to place them in a pit covered in such a way as to prevent the escape of fruit fly.

Inspector Hitchcock said that after notice had been served on defendant, the fruit was collected in a heap and partly burnt; but to attempt to burn it would not satisfy the requirements of the proclamation. The fruit fly pest was becoming a menace.



## N.S.W. FARM PRODUCE AGENTS' ACT.

The Farm Produce Agents' Act, in N.S.W., has recently been amended, some of the major provisions being the increasing of the bond from £500 to £1,000 in the case of individuals and to £2,000 in the case of firms or companies; the wholesale seller of fruit becomes the growers' selling agent and not a buyer. Where fruit is purchased the price must be definitely fixed prior to the fruit being delivered. A trust account is no longer necessary, but account sales must be rendered with payment within 14 days of the sale. The fact that an agent may not receive his money from the retailer does not affect his liability to pay the grower the amount fixed.

Regulations may be framed to control storage, ripening, etc., particular markings to be placed on repacked fruit. The commission remains at 7½ per cent., and the agent has the right to deduct out-of-pocket expenses.

**Kempsey.**—The fruit displayed at the recent show reflected great credit on the exhibitors. The fruit included Oranges, Lemons, Mandarins, Limes, Custard Apples, Pomegranates, Apples, Persimmons, Grapes, Bananas. The prize-winners included V. Kesby A. Dornan, Mrs. D. J. Anderson, W. J. Keast, Mrs. L. T. Lindsay, W. J. Brenton, Mrs. H. Hurley.

**Bathurst.**—Excellent fruit was displayed at the recent Bathurst show, including Apples—Delicious, Jonathan, King David, Winesap, G. Smith, R.B., etc. Pears—Packhams, B. Bosc, Jos., B. D'Anjou. Peaches, Quinces, Grapes, Walnuts, Almonds, dried Pears and Prunes were also staged.

Among the prize-winners were A. Buckley, W. F. Northcott, Hollis Bros., Fry Bros., S. J. Taylor, R. W. Peacock, S. Price, J. Cox, W. Woolard, J. W. Taylor, A. C. Steele R. Brown, W. C. Hutley.

## HILLCREST NURSERIES, ERMINGTON (N.S.W.).

In turning back the pages of history, and the reminiscences of the pioneering days of Parramatta and district, one can visualise Ermington as a tract of virgin country. Few of the pioneers of the day predicted that this area, by developmental progress and industrial habitation, would change to the important horticultural centre which it is to-day.

Away back in 1877, Mr. R. Hughes, Senr., commenced operations in the nursery business. He faced many difficulties, but blazed the trail for the introduction of the modern methods in use to-day.

Mr. Hughes, Junr., has succeeded in building up a popular business. He has specialised in the highest quality obtainable, and is in receipt of valued appreciations regarding the products of the Hillcrest Nurseries. Ample provision has been made this season to meet the demand for citrus trees: all trees are guaranteed. Deciduous trees and roses are other specialties of Hillcrest Nurseries, and practically any variety produced is procurable. Orders are carefully packed and speedily despatched. Mr. Hughes' display of roses at the recent Sydney Show was greatly admired. This firm has exhibited at the R.A.S. since horticulture was first displayed. The firm's catalogues, which contain much useful information, are available on application.

## Dried Fruit Notes.

## VINE FRUITS STATISTICS.

## Californian Acreage and Yield.

The progressive reduction in the acreage and yield of dried vine fruits in California is shown in the following tables taken from an article in "The California Grower" for February, 1932, entitled "The Thompson Seedless as a Raisin Grape":—

	Area in Acres.		
	1926.	1928.	1931.
Thompsons . . . . .	207,148	182,601	152,134
Muscats . . . . .	106,547	98,404	78,928
Sultanas . . . . .	15,489	13,453	11,302
Currants . . . . .	543	759	589
Total . . . . .	329,729	295,218	242,953

	Yield in Tons.	
	Thompsons.	All Varieties.
1927 . . . . .	209,000	268,000
1928 . . . . .	146,000	195,000
1929 . . . . .	158,000	215,000
1930 . . . . .	143,000	195,000
1931 . . . . .	122,000	160,000

## Australian Figures.

The total area under vines (including wine, table Grape, and drying varieties) in Australia is given as follows in the Commonwealth Year Book:—1925-6, 112,697 acres; 1926-7, 112,120 acres; 1927-8, 113,252 acres; 1928-9, 115,297 acres; 1929-30, 115,225 acres.

The total yield of dried vine fruits has been:—1925-6, 35,032 tons; 1926-7, 55,201 tons; 1927-8, 31,850 tons; 1928-9, 71,723 tons; 1929-30, 72,194 tons; 1930-31 49,500 tons.

## N.S.W. VINE FRUITS.

## Dried Fruit Notes.

## Export Proportions and Production Estimate.

The N.S.W. Minister for Agriculture, on the recommendation of the State Dried Fruits Board, has determined that the following proportions of the N.S.W. 1932 output of dried vine fruits be exported, namely, Currants 75 per cent.; Lexias, 75 per cent.

Towards the cost of defraying the expenditure involved in the administration of the Dried Fruits Act and of carrying out the duties and functions of the Board, it has been decided to re-impose, for the year 1932, a levy of 1/32nd per lb. on all growers of these classes of dried fruits. This will be collected from the packing sheds.

The following is a preliminary estimate of the production in N.S.W. for the 1932 season:—

Currants . . . . .	475 tons
Sultanas . . . . .	3,000 tons
Lexias . . . . .	195 tons
Total . . . . .	3,670 tons

The college student had failed to pass a very important examination. Wishing to break the news gently to his parents, he sent the following wire to his elder brother:

"Have failed to pass exam. Prepare father."

The brother answered:

"Father prepared. Prepare yourself."



# Loading and Stowing Fruit for Export.

Improved Methods in Operation in South Australia.—Reducing Rough Handling and Damage to a Minimum.

## Loading and Stowage Methods.

**A**PPECIATIVE REFERENCES to improved methods of loading and stowing fruit for export were made at a recent meeting of the executive of the South Australian Fruit Marketing Association.

In reply to an enquiry, the Chief Horticultural Instructor for South Australia, Mr. G. Quinn, has courteously made available the following information with regard to the methods used in this State of slinging the fruit aboard, also the method of stowing it in the hold of the "Port Sydney"—on the wharves, both at Port Adelaide and the Outer Harbor, the fruit is all stacked for inspection in sheds, each line in a separate stack. The various shipping agents provide experienced men to open cases as desired by the Inspector, and the workmen replace the fruits, and close the cases again.

There are two stevedoring firms loading ships. All fruit is handled on trays which are placed one to each low four-wheeled wharf truck, and these are run into the sheds alongside the stacks of cases, and are loaded and pulled out again on the wharf to the shipside, from whence the laden trays are lifted by the ship's derricks and lowered into the hold. The methods of slinging are as follows:—

One company—the S.A. Stevedoring Company—uses a heavy gauge cable wire cage-work woven around the slinging cables, which loop over the handles of the tray. This not only prevents the stacked trays from falling off, but it

distributes the pressure,

which would otherwise impinge upon the cases from their contact with the slinging cables. Sometimes when the hoisting begins, one or two corner cases of the top layer on the tray are tilted slightly, but under the supervision maintained, these are replaced in position before the full strain of the lift raises the tray off the supporting truck. This contrivance is good, but not so good as the spreading frame and rubber sleeved sling ropes used by the Adelaide Stevedoring Company. This consists of a frame skeleton, the size of the tray. It is lowered over the tray stacked with its load of 52 standard Apple cases.

The loops are placed over the handles of the tray, and the frame adjusted, so that the battens which pass around the top edge of the frame each supports the top layer of cases along its own respective side. There is no netting to hold the cases in, because, whilst the top layer is held rigid, the weight of the load keeps the lower layers of cases in position in a square block. The four battens which constitute the top rim of the frame are hinged at each corner instead of being rigid. This allows a little give and take when adjusting the spreader around the top layer of cases on which it fits closely.

The method of stacking, and affording an opportunity of ventilating the stacks of cases of Apples in the holds of the Port Sydney—I understand all of the Port Line boats adopt it—consists of placing horizontal battens two inches square in section between each layer of five cases deep, and likewise, vertical 2 in. x 2 in. battens are stood up between each length of five cases. These are, of course, supplemented by the usual  $\frac{1}{2}$  inch horizontal strips laid between each layer of cases. Before beginning to put the bottom layer in

position, the thicker dunnage is laid on the floor at such distances apart, as will cause them to carry the weight at the ends, and not across the middles of the cases.

The matter of building these thick dunnage battens vertically into the stacks appeals to one as conforming to the laws of physics, and they afford an opportunity of reducing the possibility of warm pockets persisting in the hold, in spite of the engineer's efforts to bring the temperature down throughout the stacks.

I may say that here, we are, with the cordial co-operation of the stevedoring companies and the ships' staffs, bringing the rough handling and damage in loading, down to a minimum.

Inspectors watch the handling on the wharves and stacking in the holds day and night, and stout planks are abundantly placed for the men to walk on, and for the sling trays to land upon in the holds. Any man seen to walk on, or drop, a case is warned, and if repeated, the Stevedoring Company's representative is asked to deal with him, or we will prosecute him under the State law dealing with rough handling of fruit.

Thus far, this procedure has worked well, and very few real causes for complaint are now arising. Constant vigilance, however, is necessary, as the working gangs are being constantly changed at the different ships or shifts, and the carelessly inclined, have to be found out actually exceeding a reasonable latitude in handling the cases.



Improved loading of export fruit at Port Adelaide. Note wooden frame in sling to prevent wire ropes from crushing the cases.



The photo. on the preceding page of this improved loading system is to hand by courtesy of Mr. D. P. Murray, of the Gerrard Wire Tying Machines Co. Pty. Ltd., Adelaide. Mr. Murray writes:—

The photograph herewith shows the new sling and tray which is being used very successfully this season at the Port Adelaide docks for loading standard cases of export Apples, and I think it could be profitably copied by shippers in other States.

You will note that in the sling a light wooden frame is used as a spreader, and this prevents the wire ropes from crushing the fruit in any manner whatsoever, and at the same time eliminates the risk of boxes falling off if the sling strikes the ship's gear or sides of the boat.

The load consists of 52 boxes of four layers with 12 reversed through the middle. The frame is securely fastened to the sling at a height to reach the middle of the boxes of the top layer. The loops of the sling are slipped over the traybearers which project 6 in. from the floor and are placed 10 in. from the sides.

2 x 1½ in. hardwood is used for the construction of the frame (inside measurement 53½ in. x 62½ in.). This is strongly reinforced on the corners by iron brackets, and the ropes are securely held in position by Turk's head bolts.

Captain Clingly, of the Adelaide Stevedoring Company, states that the use of the new sling has eliminated all risk of damage to the fruit, and has also enabled them to speed up the work by increasing the size of the loads.

Readers of the "Fruit World" will be pleased to learn that a considerable improvement has been effected in the packing and grading of export Apples from this State since the introduction of the standard pine case, some of the packs having reached a very high standard, and when the packers have had further instruction in packing the new box according to the charts issued by the Victorian Horticultural Department and Gerrard Wire Tying Machines Co., the rest of Australia may well look to their laurels in overseas competition for quality fruit packed in attractive packages.

One leading exporter, for next season, has decided to pack entirely according to count instead of size. This method, he considers, being the only means to obtain a perfect pack, and the little extra payment to the packers for more careful wrapping and grading will be easily recovered in the higher prices assured on the other side.

The method of inspection in this State in closed sheds on the wharves, is in striking contrast to the obsolete methods in Victoria. Here, practically the whole of the consignments are stacked separately, and the work is carried out under the best conditions by inspection officers—four men only being required to do the whole of this work.

In the Blackwood district, Mr. Beaumont (of the Horticultural Department) is carrying out the inspection at the large sheds, and in addition to his official duties is giving packers the benefit of his experience to enable them to reach the standard required to compete successfully in the overseas markets for the better class trade.

#### THE RUNNER-UP.

At a recent society wedding, so great was the throng and so badly organised the arrangements that one of the guests said to a young gentleman in tails and spats:

"Excuse me, sir, but are you the bridegroom?"

"No, sir," replied the young gentleman, "I was eliminated in the semi-finals."

## New Zealand Marketing Prospects.

Messrs. Radley & Co. Ltd., fruit auctioneers, Municipal Markets, Auckland, N.Z., report under date April 13 as follows:—

Another season for citrus fruit is closely approaching, and we feel sure that our Australian grower friends will find the New Zealand market a profitable outlet for good quantities of all varieties of citrus, provided shipments are kept at a steady level.

Auckland is generally considered to be the largest market in New Zealand. Climatic conditions are conducive to fruit eating, and the fact that over one-third of the total population of N.Z. is resident in the Auckland province ensures the consumption of large quantities.

The premium at present obtainable on Bank of N.S.W. cheques, of £13/12/6 per cent., and the reduced freight rate, helps to offset the depressed trading conditions.

**Mandarins.**—Small quantities are arriving to this market from Fiji but after May we are dependent solely on Australian shipments, and a good market is available until the end of the season. The most popular sizes are 200 to 300 count.

**Navels.**—Californian are at present selling at 45/- per case: this price is an extreme one on account of scarcity of supplies. Oranges from the Cook Islands will be available in quantity shortly, and as these are popular with buyers, we recommend Australian growers not to commence shipping Navels until properly sweet—from June onwards our market should be payable. The most popular sizes are 125 to 150 count.

**Valencias.**—This variety usually comes on to the market at the end of the Cook Island season, consequently Australia has to supply the whole of the demand. The most popular sizes are 125 to 175 count.

**Lemons.**—On account of good quantities of locally-grown, Auckland only occasionally needs supplies: there is a better demand for Australian supplies in Wellington and the South Island.

We recommend growers to ship regularly by each weekly steamer, thus ensuring receiving the average of the market over the entire season. We sometimes receive shipments from some growers only when the Sydney market has suddenly fallen—a time when probably Sydney agents have also shipped—thus meeting a glutted market. We have found over a period of years that the consistent shipper obtains the best of the market.

Reilly's Central Produce Mart Ltd., Dunedin, report under date March 30, 1932:—

In regard to prospects of Australian fruit, we anticipate the first consignments of Mandarins coming into this market in April, when we would expect to see gin cases from N.S.W. realising from 15/- to 16/- per case for choice quality fruit in prime condition. Later on in the season, when Berri and South Australian Mandarins are available, which are a much firmer and closer skinned fruit than the N.S.W., we expect prices for these to be at least 10 per cent. higher than the N.S.W. fruit.

Then early Navel Oranges of good quality from N.S.W. should realise between 15/- and 16/- per gin case. Later on, when Victorian and S. Aust. Navels are available, we are inclined to think that choice Navel Oranges will realise in this market from 15/- to 16/-, according to quality, that is, provided the fruit reaches us in good condition.

Lemons specially packed, sundried and cured, from N.S.W., early in the season will probably realise 16/-, and from Victoria, later in the season, really choice fruit



would realise about 14/- to 16/-; and Adelaide fruit, choice, well cured, anything from 16/- to 18/- for nice quality Lemons running from 160 to 200 per case. Grapefruit would probably realise about 14/- for choice quality packed in gins, and about 12/6 for Grapefruit packed in the ordinary dumps.

**Passion Fruit.**—Owing to our local market being over-supplied with Passion Fruit grown in the North Island, we are inclined to think that Passion Fruit will be sold in the vicinity of between 14/- to 16/- per case.

**Cherries.**—It is too early to say what will happen with the Cherry market, but, judging from past experience, we should say that with the high duty and protective tariff, it will not pay to forward Cherries to N.Z. unless possibly a few very early Cherries from N.S.W. The same applies to shipping Pears, Apricots, and Plums from Australia. Unless it is the very, very early W.B.C. Pears, which can be sold in this market on a basis of about 4½d. per lb., we don't think there is a prospect of a profitable trade.

The port of shipment to the South Island, and to Dunedin in particular, by direct boat from Sydney is the best, the "Waikouaiti," or some of the Union Company's steamers; from Melbourne, direct boat per "Wainui." Average weekly consumption, we will say, the Dunedin market would, in our opinion, consume, say, 500 Oranges, 100 Lemons, 50 Grapefruit, 50 Passion Fruit, 50 Pines, possibly 200 Pears and 100 Cherries. The best method of shipment is by direct steamer.

As regards the varieties required, it would not pay to ship anything but the very choicest fruit to this market, and in Oranges, sizes running from 90 to 160 give the best results.

**Methods of Packing.**—For Sydney fruits, our buyers prefer the gin case, that is, for Sydney Navels, Mandarins, and this case, in our opinion, suits citrus fruits much better than the ordinary dump case. Of course we realise this is a very expensive case, but it certainly gives the best results.

Messrs. Turners & Growers Ltd., Auckland, New Zealand, write under date March 31:—

**Oranges.**—Price, of course, will depend solely upon total quantities imported from Australia and the Cook Islands. Navel Oranges should sell very well, especially if the fruit is colored and sweet.

**Lemons.**—The market varies a great deal. At present plentiful supplies of Auckland-grown Lemons are available, and we cannot recommend Australian shipments.

**Grapefruit.**—Small quantities of Californian Grapefruit are still being imported into N.Z., and there should be a moderate demand for this line from Australia, provided only the correct variety is sent. There will be a large crop of N.Z.-grown Grapefruit this year, and once these are on the market we would not recommend Australian shippers to consign to N.Z.

**Passion Fruit.**—The Auckland Province provides most of N.Z.'s requirements of Passion Fruit, but there is always an opening for Australian Passions during the winter and spring months.

**Cherries.**—Smaller quantities than usual were imported from Sydney last year, principally on account of the failure of the N.S.W. crop. Fortunately, large quantities of N.Z.-grown were marketed. It is our opinion that

N.Z. growers should be protected by some arrangement with Australia whereby Australian Cherries were not sent when the bulk of the N.Z. crop was on the market. Late Florence and Margarets always sell well after the local crop is finished.

## South Australia

### DRIED FIG GROWERS' ASSOCIATION.

The Dried Fig Growers' Association of South Australia has a membership of 47 growers representing an area planted to Smyrna Figs of approximately 60 acres, and embracing growers of the Barmera, Berri, Renmark, Moorook, and Loxton districts. The chief executive officers are Messrs. H. M. Dalziel (Chairman) and C. Rumball (Secretary).

#### Pack of 40 Tons.

It is estimated that the harvest this season will be approximately 50 tons. In three years' time the average annual harvest should be about 80 tons.

Machinery for treating the dried Fig crop has been installed at the shed of the Berri Co-operative Packing Union. Messrs. R. Gaskell and H. Carter, who are experienced in growing and packing, are to supervise the preparation of the fruit for marketing.

Prices have been fixed as follows:—

Per lb., packed in cellophane wraps—4 crown, 1/6; 3 crown, 1/4; 2 crown, 1/2; 1 crown, 1/-; M.F., 10d. In cartons, 1d. lb. extra. In ½ lb. packets, 1d. lb. above carton prices. In 14 lb. or 28 lb. boxes, 1d. lb. less.

### PORT OF LONDON.

Since 1908, when the Port of London was taken over from the privately owned dock companies, vast strides have been made, and it still stands as the largest shipping port and principal banking centre in the world.

London is progressing in all directions, an up-to-date improvement programme having been carried out. Port facilities have, during the last few years increased enormously, while the port dues have been very substantially reduced. This great success is due to its able honorary directors, also to its Chairman and staff.

London exerts a tremendous influence on international trade, inasmuch as bills of exchange on London are the currency of the world's commerce. The smallest shipper being able to hypothecate his documents on the best terms; while exporters and importers can make the most advantageous financial arrangements.

The Port of London is unique in many ways. The Authority own warehouses, vaults and cold stores for the reception of all classes of goods, which relieve merchants of all responsibility and expenditure, which they would incur if they had to provide their own storage. The Authority receives the produce from the vessel and renders all services required by merchants in the course of marketing and delivery of the goods, weighing, taring, grading, surveying, sorting to condition, blending, and hundreds of other operations. Goods are sold by sample and go direct to the purchasers from the docks. During recent years many very large factories have been erected near London and on the Thames. This is one of the many reasons why the trade of the port is increasing so rapidly.



## THE VICTORIAN FRUIT MARKETING ASSOCIATION.

THE monthly meeting of the Victorian Fruit Marketing Association was held at Melbourne on April 29, 1932. There were present, Messrs. J. W. Bailey (Acting President), J. M. Ward (Superintendent of Horticulture), H. G. Colombie, G. W. Brown, J. B. Mills, W. H. Carne, C. J. Parnham, W. P. Hutchinson, A. S. Harrison, C. H. Jost, F. Cave, W. A. Webb, S. E. Scott, J. M. Jacobs, and the Secretary. Mr. Turnbull, representing the Australian Standards Association, was also present.

**German Duty on Apples.**—In reply to the Association's letter, the Minister for Commerce (Hon. C. A. S. Hawker), wrote stating that Australia previously has declined to avail herself of the benefit of the most favored nation treatment for Australian produce entering Germany. The present Government had notified the German Government that German goods entering Australia were accorded treatment no less favorable than that accorded to goods from any other foreign country, and it was hoped to receive notification in exchange from Germany which would secure complete most favored nation treatment for Australian produce entering that country. It was decided on the motion of Messrs. Colombie and Jost to write thanking the Minister, though surprised at the inactivity of previous Governments. The Association again urged its request that the necessary action be taken to place Australian Apples and Pears imported into Germany on an equal footing with those of N.Z. and America.

**British Preference on Fruit.**—Correspondence was read from New Zealand, suggesting that Australia send a fruit industry delegate to Ottawa to confer with the fruit industry delegates from the other British Dominions, in order to arrive at a common policy. The South African Government also wrote stating that preference proposals as drafted by the Australian Apple and Pear Export Council were receiving the attention of their Division of Economics prior to the Ottawa Conference. The Tasmanian State Fruit Advisory Board advised having written to the Prime Minister urging that a delegate be officially appointed to represent the fruit industry. Tasmanian fruit shippers nominating Mr. J. B. Mills. W. Australia telegraphed similarly. South Australia considered the expense not justified, and suggested that the industry be represented by Hr. C. H. Tutton, who would be in Ottawa at the time.

There was a long discussion: it was pointed out that the sum of £1,000 had been set aside by the Australian Apple and Pear Export Council to provide for the sending of a delegate to Ottawa. Resolutions were carried: (a) in favor of the fruit industry being represented at Ottawa, and (b) that the V.F.M.A. recommend to the Australian Apple and Pear Export Council that Mr. Mills be the delegate.

**Uniform Fruit Cases.**—The Secretary reported having attended a conference called by the Australian Standards Association in connection with the Council for Scientific and Industrial Research. The desire for a uniform case for export Apples was stressed—at least as far as individual States were concerned. Mr. Turnbull said that the Standards Association had the machinery available for testing cases and the Association exerted a moral force in effecting standardisation. It was decided to thank the Standards Association and to co-operate in every way.

**Sales Tax on Agricultural Lime.**—Mr. T. E. Butler wrote stating that the Taxation Commissioner had ruled that lime was not a fertiliser, but a "soil sweetener," and

the Sales Tax must be paid. It was decided, on the motion of Messrs. Hutchinson and Jost to make further representations to the Government for the remission of the Sales Tax on agricultural lime.

**Freight on Pears.**—The South Australian Fruit Marketing Association wrote, stating that two half cases of Pears made (in shallower) when wired together, were of the exact measurements of the Canadian standard bushel. Freight was being charged as for two half cases instead of one whole case. Mr. Mills reported that he was in touch with the O.S.R.A., Sydney, on this matter, and had urged that these packages be included at the bushel case rate. The report was adopted, and it was decided to support the request from South Australia for the lower freight rate.

**Pear Shipment Indemnity Clause.**—Mr. Colombie reported that the Pear Shipment Indemnity Clause was strongly objected to by growers and traders. The indemnity clause for the "City" line of boats was particularly objectionable, as this was designed to absolve the shipping companies from all claims. Mr. Colombie believed that this clause was ultra-vires. It was decided, on the motion of Mr. Mellor, that it be a recommendation to the Apple and Pear Export Council that a uniform basis of Pear temperatures be adopted by shipping companies, and that same should be observed without a guarantee from individual shippers.

**Handling Fruit at Port.**—Messrs. Scott and Edwards wrote directing attention to several desirable improvements which should be possible in connection with assembling, inspection and loading fruit for export. The firm also objected to the cancellation of their space for Apples for Canada. It was decided to refer their complaints re loading, etc., to the Fruit Exporters' Handling Committee. Further information was sought with regard to the shipping company having issued a booking note.

**Thrips Investigation.**—The Secretary reported that contributions to date had amounted to £524/17/-. A letter had been received from the Rural Credits Fund of the Commonwealth Bank, stating as follows:—"While we are of the opinion that the amount aimed at, namely £1,200 per annum, should be collected from the parties interested, approval has been given to contribute an amount not exceeding £400 to the first year's expenses, if outside subscriptions are insufficient to bring the year's collections up to £1,200, such contributions to be on the basis of 10/- for every £1 subscribed by other parties." As further donations were expected, including those from other States, satisfaction was expressed at the letter from the Commonwealth Bank, it being believed that the necessary amounts would be received.

**Field Days.**—Following on the success of the Field Days last season, favorable consideration was given to the drawing up of a programme for Field Days at country centres during the coming winter. This matter was deferred until next meeting. In the meantime local districts desiring the organisation of Field Days were requested to write to the Association.

**Rail Freight on Export Fruit.**—The I.F.M. Company wrote stating that a grower had been charged full truck rates for a small consignment. As several other members quoted similar instances, it was decided to request members to supply full details so that particulars could be placed before the Railways Commissioners with a view to obtaining a refund.

**Fruit Show.**—Consideration was given to the suggestion that a big fruit show be conducted in 1935 in connection with the Melbourne Centenary Celebrations. Mr. J. M. Ward was asked to confer with the Centenary Committee and report further.



# Powdery Mildew of the Apple and its Control.

(N. J. Adamson, Orchard Instructor, Hastings, N.Z.)

Powdery mildew may be regarded as a major Apple tree disease throughout the whole of New Zealand, and in certain areas it ranks foremost in causing economic loss. Possibly Hawke's Bay and Central Otago orchards suffer more severely from this disease than orchards in the other main fruitgrowing districts.

Although powdery mildew may cause a direct loss by reducing the market value of the crop through russetting (as undoubtedly mildew is one cause of russetting), the greater loss is brought about by the general reduction of healthy leaf-area and consequent weakened growth following attack. Such a condition must necessarily reduce the size of fruit and the total weight of crop, and, in cases of severe attack, will weaken the tree to such an extent as to affect the following season's crop. Continuous mildew attack will prevent a tree from gaining its maximum size, and where infection is severe a final state of extreme debility is reached.

Powdery mildew flourishes under conditions which prevail in Hawke's Bay, and one may surmise that such conditions favor its development. Orchards, for the most part, are particularly well sheltered by thick poplar belts, enclosing small areas. Summer temperatures are high, humidity is low. Except in young trees, foliage lacks tone, due no doubt to the particular soil and climatic conditions; consequently there is less resistance to the disease than with trees growing on clay lands.

Varieties are not equally susceptible to attack. Perhaps the Jonathan is affected to the greatest extent, while other varieties of commercial value to suffer severely are Gravenstein, Lord Wolseley, Cox's Orange, Sturmer, Dunn's, Cleopatra, and Rome Beauty. The time of attack by the disease and its development coincide with the unfolding of the primary leaves, and continue throughout the whole of the growing period. It therefore follows that spraying designed to control the disease should begin at an early stage, and be followed through till the season ends. There is an apparent resistance by certain varieties, and a similar resistance may be produced by bringing about a healthier leaf-growth of susceptible varieties, or, if not actually a leaf more resistant to the disease, one that is more resistant to spray specifics which are particularly desirable in the control. There seems to be evidence of

## the use of potash salts

producing a leaf of better tone, which is more resistant to spray injury, and which in consequence may be treated more effectively against mildew attack.

In suggesting a method of dealing with the disease where the trouble has existed for some time, it is not necessary to prescribe anything revolutionary in orchard practice. Methods which are quite orthodox will give satisfactory results.

In looking for a reason for the failure of many growers to combat this trouble, the writer has been confronted with several significant features in orchard-management which have an important bearing on the subject. For quite a time there has been a prejudice against the use of lime-sulphur as a summer spray, and this has grown to the extent of eliminating the use of lime-sulphur from some orchards, and in many instances having this valuable specific replaced, after the blossoming period, with wettable sulphurs and sulphur pastes (all sublimed sulphurs) less toxic than lime-sulphur, and not giving re-

sults as desired. Possibly the prejudice against lime-sulphur arose from the repeated scorching of foliage in the summer through persisting in its use on trees already weakened through neglect earlier in the season, and perhaps in using a more concentrated lime-sulphur at too great a strength for the particular stage of growth.

**Insufficient pruning and the injudicious extension and crowding of lateral growths leading to weakness has aggravated the trouble.**

Cultivation and the general nutriment of the tree has an important bearing on the matter of leaf-development and counteracting the effects of mildew. Failure to attain something approaching the ideal in this regard, and the consequent weaker growth, results in mildew damage being more pronounced. In this connection the advent of the tractor, in facilitating orchard cultivation, has produced a considerable improvement in tree-growth, balancing to a large extent the ill-effects of mildew.

The method of combating the disease suggested by the foregoing remarks is a matter of

## sufficiently stimulating leaf-development

and consequent tree-growth, by pruning, cultivation, and the use of protective sprays, including the use of lime-sulphur. There is no short cut to success in securing in Apple trees the perfectly healthy foliage of rich tone and the good tree growth one may visualise as being ideal. It is a matter of persistent effort and good orchard management.

**Pruning should be of sufficient severity to guarantee strong growth as a preliminary.** A good thinning-out of the tree is particularly desirable, even to the extent of reducing the number of main limbs. Weak and diseased wood should be boldly removed, and extended lateral growths severely shortened and adequately spaced. In extreme cases one may go to the extent of almost skeletonising a tree. On varieties, such as Sturmer, which have become heavily spurred, a heavy spur-pruning, in addition to thinning out of wood, is of undoubted benefit. One may hesitate to adopt sufficiently drastic treatment, as is necessary, regarding it as a sacrifice of the following season's crop. Rarely is there a sacrifice of crop under such circumstances, but often an improved yield results immediately through larger-sized fruit being produced.

**Early and good cultivation is extremely important, and in this respect the introduction of the tractor, as already mentioned, has greatly assisted.** The advantages of the use of heavier implements, particularly the double tractor discs, in securing a good tilth quickly, and subsequently in being able to take full advantage of cultivating after rains, is fully recognised. Where horses are still utilised autumn ploughing is of great assistance in facilitating the spring work and in securing the desirable tilth by the more tedious method.

**Sufficient thinning of fruit to avoid overcropping is also important in maintaining good foliage.**

**Spraying must necessarily play a very important part in combating mildew and in reducing its effects to a minimum.** A programme designed to shorten the interval between sprayings, particularly early in the season, will go a long way towards minimising the initial infection. When such is satisfactorily accomplished the subsequent summer preventive treatment is more effective, as it may be carried out with less liability to scorch



where lime-sulphur is used throughout. Frequently the period between the pre-blossom and post-blossom spray is abnormally long, allowing the disease to become fully established. Commencing with lime-sulphur, 1-15, at "greentip," followed by an application of 1-35 at "open-cluster," and 1-60 at full "pink," one may keep pace with the primary leaf development and afford it protection. When 50 per cent. of the petals are down lime-sulphur, 1-100, followed at ten to fourteen days interval with lime-sulphur at the same strength, will ensure sufficient protection. Subsequently one must be guided in the use of lime-sulphur by the strength of foliage secured. This, it may be recognised, is a programme for black-spot control, and is also effective in combating red mite, therefore it is of considerable advantage if lime-sulphur can be continued till later with safety.

Lime-sulphur should be used much weaker as the season progresses, especially if foliage is below normal vigor and if the lime-sulphur is highly concentrated, working down eventually to 1-180 to 1-200. Some judgment must necessarily be exercised in the later sprays in using lime-sulphur, taking into consideration the strength of foliage and diseases to combat. The interval between

sprays at this later stage may be extended to twenty-one days. One may often gain something by substituting a free sulphur spray when temperatures become high, possibly from late December on, in order to produce a slight toning up of foliage, but more particularly to avoid injury. Possibly a good deal of credit attributed to the use of proprietary brands of wettable sulphurs is due to the earlier treatment, carried out on the lines suggested here.

The value of the use of sulphur in a very much finer form than can be secured in the form of a sublimed sulphur is already proved, and the possibilities of securing a colloidal sulphur in commercial quantities may shortly bring about a considerable modification of present spraying recommendations, particularly in reducing the number of sprays necessary during a season.

However, the use of a more effective spray which will tone up foliage in a marked degree can only be fully effective when supplemented by good treatment otherwise, and its use will in no way remove the necessity for stimulating growth by good cultivation, sufficient pruning, regulation of crop by thinning, and the use of fertilisers.—"N.Z. Journal of Agriculture."

## Spraying Fruit Trees in Tasmania.

### Bordeaux-Lime Sulphur-Lead Arsenate.

**F**OLLOWING THE EXPERIMENTS that have been carried out this season to test the efficacy of the different spray programmes, a field day was held at Geeveston, Tasmania, in mid-February, in order to examine the different plots and the results of the treatments.

An area of Sturmer Pippins was selected for the tests at Eric Sharpe's orchard that had in previous seasons been badly affected by red spider and black spot. This was divided into six plots, the treatments supplied being:—

Plot 1.—Unsprayed.

Plot 2.—Weak dry lime sulphur programme. Arsenate of lead and hydrated lime combined with this in the later sprays.

Plot 3.—Lime sulphur programme—"Greentip" 1-10; "pink" 1-20; "calyx" 1-50. Arsenate of lead. Later sprays down to 1-100 with arsenate of lead and "Vallo" spreader included.

Plot 4.—Strong dry lime sulphur programme (at strengths comparable with the lime sulphur sprays supplied in No. 3). Later sprays combined with arsenate of lead.

Plot 5.—Iron sulphide excess lime sulphur spray:—"Green tip": lime sulphur 1-20; "pink": 1-50. Arsenate of lead—"calyx." Later sprays lime sulphur, sulphur, flour paste, arsenate of lead mixture.

Plot 6.—Bordeaux and oil:—"Green tip": lime sulphur 1-20; "pink": 1-40. Arsenate of lead sprays—"calyx." Later sprays atomic sulphur and arsenate of lead.

Five applications were made on the plots, commencing on September 24 and ending on January 5, 1932.

A good attendance resulted, most of the Southern Agricultural Bureaux being represented, and an interesting hour was spent in examining the different sections and treatments, which were fully explained by the Chief Horticulturist, Mr. P. H. Thomas.

The most outstanding feature of the tests was the almost complete absence of black spot, codlin moth, powdery mildew and red spider among the treated sections, Nos. 5 and 6, whereas the control plot, which was un-

treated up to December, was so badly infected with black spot and red spider that it was difficult to find a fruit or leaf that had escaped the depredations of these pests.

Discussing the plots with prominent growers, there seemed a tendency to favor Nos. 5 and 6 programmes as giving the best control with the healthiest foliage and fruits.

It is the intention of the officers of the Horticultural Division to keep the areas under surveillance until harvesting, when a careful check will be made of the infected fruits and a report submitted together with the cost of the different programmes.

In the evening the Chief Horticulturist (Mr. P. H. Thomas) addressed a meeting of the Agricultural Bureau on the subject of the selection, grading and presentation of fruit for export, about 35 being present.

A similar address was also given on the following evening to the members of the Sandfly Agricultural Bureau. Votes of appreciation were passed at both centres. These meetings conclude the addresses to Southern Bureaux which have been given with the object of bringing before growers the essential points in which improvements can be made in the packing, grading and presentation of consignments during the coming fruit export season.

### A GUIDE TO SUCCESSFUL FRUITGROWING.

Readers will find Goodman's new catalogue most useful and informative on all matters appertaining to the successful planting and growing of fruit trees.

For over 40 years Goodman's famous nurseries have supplied leading fruitgrowers in Australia with their stocks—first-class trees, guaranteed true to name, healthy, well grown, free from insect pests and prolific bearers of finest marketable fruit.

Goodman's Nurseries are situated near the Bairnsdale station, with a private railway siding in to the nursery packing shed, thus ensuring prompt despatch of all orders.

Write for the catalogue now, addressing your letter to C. J. Goodman, Picnic Point Nurseries, Bairnsdale, Victoria, and you will receive your copy by return post.



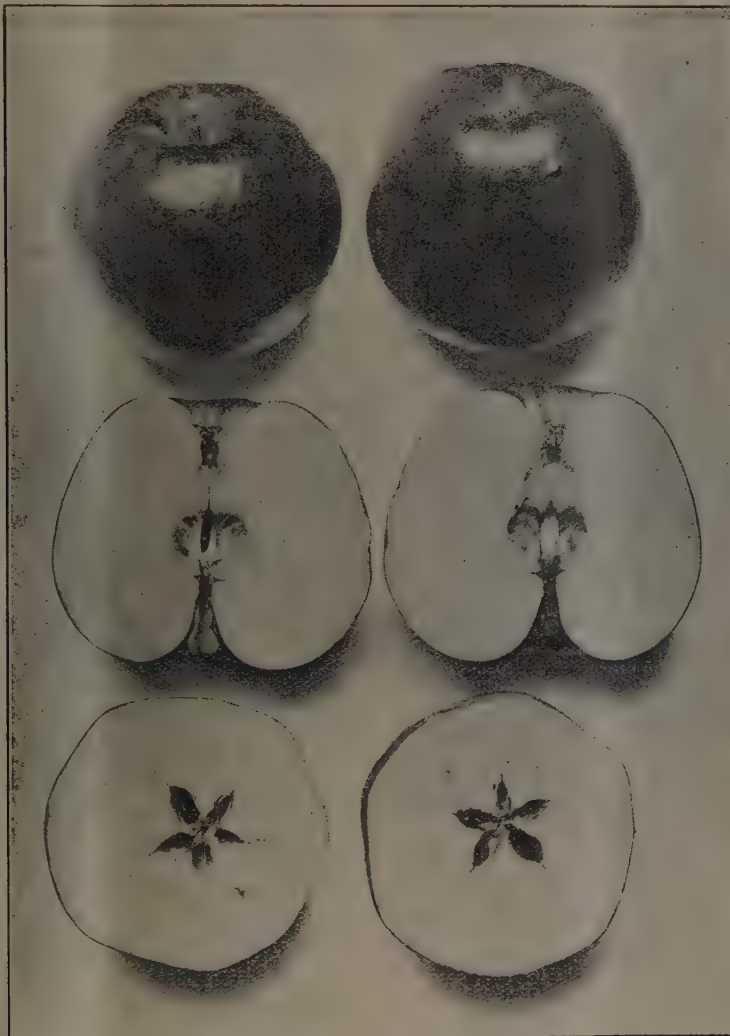
# Apple Varieties Raised in Tasmania.

An Interesting Series      ∴      Tasman's Pride

SOME INTERESTING STUDIES regarding Australian-raised Apples are being conducted in Tasmania. Mr. P. H. Thomas, Chief Horticulturist, Tasmanian Department of Agriculture, has compiled a series of articles which are appearing in the Tasmanian "Journal of Agriculture," special attention being given to Apple varieties which have been raised in Tasmania.

Tasman's Pride was raised by a Mr. Thomas Young, of Margate, towards the end of the last century. The original tree is still growing upon the property, and bearing crops of fine quality fruit.

The Apple, when fully colored, is one of the most attractive varieties grown, and never fails to excite comment, especially when viewed upon the orchard trees, the



**Tasman's Pride Apple.**  
Vertical and cross sections, showing internal structure.

The information and pictures herewith in this article deal with the variety

## Tasman's Pride.

This is now becoming a very popular variety. During recent years it has been extensively planted throughout Tasmania, and is now attracting attention on the mainland.

brilliant red fruits amongst the dark-green foliage presenting a picture that is most attractive.

Tasman's Pride is essentially a dessert variety, and besides being an attractive Apple, also possesses a good flavor. Another advantage is that, under normal cultural conditions, it consistently bears crops of good-sized



fruits, and will develop these under dry conditions, when Jonathans and other midseason varieties in the same class would be affected.

The tree is sturdy and vigorous in growth, and well fitted to bear heavy crops of fruit, but under certain conditions, particularly where a close spur-system of pruning is practised, it is inclined toward biennial cropping. This tendency is considerably modified where a lateral development is encouraged and the trees receive a fairly light pruning.

Tasman's Pride is singularly free from the diseases and pests that attack our cultivated Apples. Like other late-blossoming varieties, it seems to escape the early black spot spore infection, and is practically immune from powdery mildew and woolly aphids.



—P. H. Thomas, Photo

#### Tasman's Pride Apple.

Showing method of pruning, fruiting, and general characteristics.

#### Pomological Description.

Variety:—Tasman's Pride:

Form.—Conic; slightly flattened at the apex; irregular.

Size.—Medium to large.

Stem.—Variable; short; thick; sometimes clubbed.

Cavity.—Deep; narrow, acuminate.

Calyx.—Open; medium.

Lobes.—Medium; erect; divergent; acute.

Basin.—Medium; obtuse; wide, furrowed.

Skin.—Thick; medium; smooth; with pronounced bloom.

Color.—Ground color, pale yellow; almost entirely covered with bright scarlet, with deeper splashes of crimson.

Dots.—Small; reddish-brown; numerous towards apex.

Flesh.—Yellow; sometimes with touch of red; fine-grained; crisp; sweet.

Quality.—Very good.

Core.—Medium; sessile; abaxile.

Carpels.—Broadly round; emarginate.

Calyx Tube.—Conical.

Seeds.—Large; plump; acute.

Season.—March to May; extended to June in cold storage.

In describing these varieties the writer desires to record the initial work of classification and popularisation carried out by Mr. J. M. Ward during his association as Fruit Expert with the Department of Agriculture.

#### Ranelagh.

#### T. A. Frankcombe's Orchard.

Ranelagh adjoins Huonville, and is a prolific Apple-growing district, of which the outstanding orchard is that of Mr. T. A. Frankcombe. There are between 60 and 70 acres of orchard, as well as several acres devoted to Hops and Tobacco. The latter crop is only in the experimental stage, and its success or otherwise is awaited with considerable interest in the district. The Apple orchards are splendidly cultivated and the uniform planting of trees, appearance of fruit and freedom from pests, is a credit to the owner. The Frankcombe estate covers a large area, and there are eight different orchards. The homestead, "Clifton," is a fine roomy house with a beautiful garden, and the outbuildings, which includes a large hop kiln, presents the appearance of a village. The hop garden occupies ten acres, and is the only hop garden along the Huon. Over 100 men, women and children are employed in the hop-picking season, and comfortable huts are provided for them. In the Apple-picking season 20 persons are engaged in the orchards.

The soil is sandy river loam, and the trees bear ample evidence of its richness. For many years the orchard has produced an average crop of 30,000 cases, and thinning has to be carried out every year. One acre of Sturmers this year produced 1,000 cases of quality fruit and 8,000 cases have been taken from 7 acres.

Part of the orchard is very old, and there are trees in the old section that have been there for a century. These trees are still bearing, and look good for another generation.

The varieties of Apples grown for export are:—Crabs, Sturmers, Cleopatras, Scarlets, Jonathans, Stone Pippins, Ribstone, and Adams. For interstate trade, the varieties grown are Granny Smith, Democrats, and Croftons.

The pick of the various orchards is the 7½-acre orchard known as the Dorothy Orchard, which produced 6,000 cases of Cleopatras and Jonathans last season, and is expected to do even better this year.

There are 134 trees to the acre in this orchard, making 306 trees for 7½ acres. The trees are perfectly shaped and the uniform planting is the nearest approach to perfection that it is possible to attain. This particular orchard was planted 28 years ago, and each tree is staked and wired.

Tobacco is being grown in Tasmania by T. A. Frankcombe at Ranelagh, Barnett Bros., at Cradoc, and A. S. Watchem at Plenty. The experiment is being watched with considerable interest by orchardists in the Apple country.

Foreign Visitor: "Yesterday, when I call to see Mr. Brown, you say he is not up. To-day you say he is not down. Can you tell me when he will be in der middle?"



# MID-MURRAY NOTES.

Difficult Drying Season for Dried Fruit—Dehydrators  
Now a Necessity—Importance of Cover Crops—Citrus  
News and Notes.

Renmark (17/4/32).—Since my notes of last month, we have been more or less the victims of circumstances, in which intermittent rain has played havoc with the quality of our dried Currants and Raisins. In the early part of the drying season this area was producing an even sample of quality, with more 4-crown fruit than any other grade; in view of the fact that we escaped the very heavy rain experienced by the up-river areas. In late February and early March, the lower river areas were looked upon by the industry to supply the bulk of the high-grade fruit this year required for export.

Although most of the early fruit has been shipped, there will be little more high-grade to come into the packing sheds, owing to its having been too long on the drying racks.

Sultanas have darkened perceptibly through the prevailing moist conditions, and where they have not yet reached a safe state of dryness, a good deal of mould has developed.

This year of grace 1932 will be long remembered for its very short period of good drying weather. At this time (April 17), when normally 90 per cent. of the crop should be delivered to the packing sheds, there is not much more than 50 per cent. delivered up to date, and that still remaining on the drying green will have to be dried artificially.

Local makers of dehydrating plants have been working overtime to supply orders, and find it difficult to cope with all the orders received.

Growers are resorting to all manner of contrivances for obtaining sufficient heat to carry on the drying process. Bag shanties are hurriedly constructed, in which a small quantity is being finished off, while many substantial brick heating chambers are being built on sound lines, and will be permanent.

The writer is of the opinion that sooner or later a dehydrator will become part and parcel of our drying plant.

For many years now, Mr. H. Showell, who is the largest of our Sultana growers, has almost entirely dispensed with hessian work on the drying greens, his method being to transfer his Sultanas straight from the racks into  $\frac{1}{2}$  sweatings and put them into his dehydrator, where they remain until dry. The heat action not only thoroughly cures the fruit, but also eradicates the objectionable greenish tinge, so often seen in the early fruit.

Speaking to a few growers who had been in Renmark since its inception, Mr. W. H. Waters, Mr. C. R. Millar, Mr. F. Cole, all declare that this has been the most difficult drying season in over 40 years.

Sparrows have become an added pest to those which we are constantly called upon to fight. The Irrigation Trust (which body carries out the duties of a district council) has placed a premium on the heads and eggs of this bird, but, nevertheless, many tons of fruit have been destroyed to sustain their appetites. If any "Fruit World" reader has an effective means of destroying this pest, the writer would be very thankful to know of it.

Although the rains recently experienced in these parts have been frequent, they were not sufficient to germinate cover crops and penetrate sub-soils.

## The autumn citrus irrigation

has just been completed; at this irrigation cover crops of peas and beans have been planted in the greater part of the Settlement areas, and are coming on well.

The benefit derived from a yearly cover crop has been so often demonstrated that it is now becoming a general practice instead of isolated exceptions.

The writer has never missed a cover crop for the past ten years, with the result that returns have been steadily increasing, and in places where a stiff clay soil has been difficult to work, and would not retain the moisture during a hot dry period, the soil is now easy to work, and holds the moisture from one irrigation to another with ease.

Oranges are developing well and promise to be well above the average crop this year. The Citrus Association is working hard to get growers organised, realising that unless steps are taken in this direction, the coming harvest will be a difficult one to handle. The response so far has been very satisfactory, which should lead to better marketing conditions than those of last year.—"Nemo."

## FRUIT AREAS VISITED.

Mr. R. H. Harrowell, general manager of William Cooper & Nephews, Sydney, accompanied by Mr. J. L. Small, manager of the firm's insecticide department, recently travelled from Sydney to Melbourne by car, calling en route at various places of interest connected with the fruit industry. The progressive methods adopted on the Murrumbidgee Irrigation Areas were noted with pleasure. At the Griffith Co-operative Co. they met the general manager (Mr. Wilson Moses), also Mr. McFarlane, in the trading and spraying department.

Mildura was an "eye-opener." It was a pleasure to meet Mr. Winterbottom, Mr. Sloane and others, and to note the keen activity in the dried fruits industry.

At Perricoota, on the N.S.W. side of the River Murray, a visit was paid to the citrus grove of Mr. Rupert Watson, whose crops this season were estimated at 45,000 cases. Mr. Watson has eight acres devoted to Grapefruit of excellent quality.

Lockington was vited, also Bamawm; at the latter place, Messrs. Harrowell and Small met Mr. Cobbett, one of the directors of the Victorian Central Citrus Association. It was noted here that the Lemon crop was good, but the Oranges were "patchy."

At the Murrabit Packing House the visitors met Mr. Dudley Walters. Here again the Orange crop was noted to be under average. Calling at Harcourt, Apple growers were interviewed. Despite the light crop the growers were confident of better times in the coming season.

Opportunity was taken while on this journey to call on tobacco growers as some of the firm's spraying products are of value to these producers, particularly "Arsinette" to destroy leaf-eating pests and "Bordinette," which is particularly serviceable in checking blue mould. The other products of Messrs. Wm. Cooper and Nephews—such as Alboleum, (white oil), Katakilla (non-poisonous insecticide for destroying aphids, caterpillars, red spider, etc.), were reported as enjoying popularity among fruit-growers and the horticultural public,



## Factors Influencing Orchard Fertilisation.

Interesting Experiences from U.S.A.

THE object of this article is to set forth a little more clearly in the mind of the growers the functioning of nitrogen, phosphoric acid and potash.

Nitrogen is of first importance. Nitrogen is the element in fertiliser that produces vigorous vegetative growth. It increases leaf area, but not the assimilation rate, which is in contrast to phosphates and potash both of which increase the efficiency of the leaf as well as the area. With the increased leaf area there is greater consumption of nitrogen fertiliser, but with no increase in efficiency of leaves. This is one important fact to consider in fruit fertilisation. One often sees an increase in greenness and leaf surface following nitrate applications, but a lack of other proper functions.

Nitrogen retards ripening and has a material effect on the color and quality of the fruit.

Nitrogen plays an important part in the development of fruit buds into fruit in the spring. It has been proven that nitrates are not easily leached out of a soil where there are abundant phosphates and potash for normal plant growth, and that they are absorbed by the colloidal (a jelly-like substance, as albumen glue-like) film on the soil particles and micro-organisms.

In nitrogen starved trees, the leaves, as they emerge, are more or less chlorotic (lacking in color). An abun-

Phosphates have a marked effect upon the micro-organism population, stimulating them into greater activity. They also have a marked effect upon the oxidation of soil compounds and the building up of a deeper surface soil. They help make available other desirable elements. Many of the benefits derived from phosphate fertilisation are due to these other features as much as the supplying of a necessary plant food. A soil may be high in phosphates, but the supplying power may be very low and response to phosphate fertilisation readily obtained.

As related under nitrates above, phosphates have a marked effect on the increase of leaf area and the efficiency of these leaves. Many references may be found to the increased nitrate accumulation in soils through phosphate fertilisation.

Potassium compounds are very necessary to the production of starch, sugar, cellulose and other carbohydrates. They are necessary in the translocation of starch from leaves to fruit and other parts of the plants. Potash plays a large part in the development of roots, and the fibrous construction of the plant. Of possible interest to the Apple-grower is the specific effect of potash in increasing the assimilation capacity of the leaf.

Potash compounds give plants more resistance to attacks of fungous diseases and many apparently new diseases of crops are being found that are purely cases of potash deficiency or physiological troubles due to lack of available potash.

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dant nitrogen supply is necessary at all times for vigorous growth.

In many of the articles published in the last few years, one reads of the increased susceptibility of plants to disease attack where there is an over-abundance of nitrates present in the soil. In case after case, however, it has been shown that it is not because of the excess nitrogen, but to an unbalanced nutrition; when sufficient potash phosphates, or both, have been applied the diseased condition has disappeared. This points more and more towards the great importance of a proper plant food balance.

Phosphates promote root development; it assists the nitrogen and potash in producing a healthy wood and leafy growth; it helps to develop a healthy pollen, thus insuring a better pollination. There is a very close connection between cellular division and phosphate supply. It is essential to chloroplast mechanisms. Like nitrogen, it may be translocated from one part of the plant to another, and is usually found in an abundance in seed of any crop.

Potash is not so completely retained in the surface layers as phosphates, but descends to lower levels. This fact must have considerable bearing on the development of roots in the lower layers of soil.

Potash has a very marked effect upon the bark of fruit trees; it makes the bark more elastic, prevents splitting and relieves hidebound condition.

Potash fertilisers seem to enable plants to take full advantage of solar energy even in cloudy weather. Further, it is a remarkable fact that potash accumulates in these parts of the plant which are most exposed to the light, thus it is readily seen why potash helps very materially in producing color in Apples.

There is much evidence to support the nitrogen programme so popular at present in many fruit districts, because certain crop responses are easily attained with nitrogen, and such evidence is easy to get. Whether or not the results from nitrogen alone programme are in harmony with a sound soil fertility programme, is another question.



Nitrogen is the one plant food which needs no advertising, while phosphorus and potash, though none the less vital to successful production, are likely to be at a popular disadvantage, and need a good deal of advertising. The reason for this is that the plant food nitrogen, when applied to the soil is quickly available to the plant, and produces effects which are easily recognised. Whether these effects are desirable depends on the objective sought, but nevertheless a response of some sort is there and can be seen even by the inexperienced eye. Phosphorus and potash, the other major plant foods, undergo changes in the soil when applied as fertilisers and only relative small amounts are immediately available to the plant. The results obtained appear as improvements in the structure of the plant itself and the quality of the fruit, physiological effects we may call them rather intangible to those who are looking for the sensational, but very vital to the vigor and longevity of the plant and to many points which go to make up the quality of the product.

There is certainly a need for nitrogen in our orchard districts, and probably the trees are getting their minimum requirement of phosphoric acid and potash in many cases. Also, the quality of the fruit is now probably fine in most cases. But a question arises, which deserves careful thought, "Is not a fertiliser programme based solely on nitrogen fast creating a condition of phosphorus and potash exhaustion in our orchard soils, and will not nitrogen alone soon be found wholly inadequate to maintain the productivity of the trees and fine quality of fruit which is now being enjoyed?"

Every grower should start a consistent programme of proper fertilisation to at least replace the plant food his crop is removing each year and keep his orchard in proper balance.—"Better Fruit," U.S.A.

**Spain's 1932 Orange Crop.**—According to the U.S.A. Department of Agriculture, the estimated production of Oranges and Mandarins in Spain for the 1932 season is estimated at 37,000,000 boxes, of which approximately 28,000,000 may be exported. The crop, as estimated, is 500,000 boxes greater than the production last season, and over 5,500,000 less than in 1929-30.

## AUSTRALIA'S FRUIT CHAMPION.

Mr. J. P. Gibson Leaves for Sydney.



Fruit interests in New South Wales will be delighted to know that Mr. J. P. Gibson, 64-year-old-fruit-eating-marathon-race runner, is to become a citizen of that State. He left Victoria at the end of April.

Mr. Gibson performed very valuable services for the fruit industry in Victoria through the very able campaign which he carried out in lectures to schools, business men's meetings, women's organisations, and others on the subject of

health and fruit diet. Victoria is sorry to lose his services.

Mr. Gibson's own story of rejuvenation is a fascinating one. After a breakdown at 53 years of age he conceived the idea of perfect health through right living. He then completely changed his diet and has lived exclusively on fruit, nuts, salads, brown bread, cheese, etc. He immediately started on the road to health, and at the age of 64 has become an athlete, running, as previously stated, in a Marathon race over a distance of 26 miles. His motto is "Right thought, right diet, right exercise."

Mr. Gibson daily runs from six to ten miles, and enjoys a swim every morning, including, of course the winter. In his lectures to the public he advocates one fruit meal daily.

It is very interesting to note that a few days before running the Marathon race, and to make certain he could do the distance, this vigorous champion ran an unofficial Marathon, covering 28 miles in so doing. Being then satisfied he could do the distance, he entered for the Marathon race a few days later, and finished creditably over the 26 mile course.

Mr. Gibson will be assured of a hearty welcome in New South Wales.



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## CITRUS CROP PROSPECTS IN N.S.W.

## 3,277,000 Bushels Forecast.

The final forecast of prospective yields of citrus fruits in N.S.W. for the 1932-33 season is to hand from the Director of Marketing (Mr. A. A. Watson), as follows:—

Following the preliminary forecast issued on February 29, 1932, a further review and final forecast of the prospective crop is now made available from analysis of the reports supplied by Fruit Inspectors (Field Officers of the Department of Agriculture) and honorary crop correspondents.

During March, seasonal conditions have been favorable, both to trees and the growing fruit. Development generally has been vigorous, and it is expected that mostly good quality fruit will result. Considerable intermediate crop bloom is reported and in some localities heavy settings of fruit are indicated.

In some centres, slight reductions of the crop of Navels have occurred, but these should be offset by improved prospects in other localities. It is expected that the crop yield should reach the previously estimated total.

## WORLD HORTICULTURAL SITUATION.

We have just received from the International Institute of Agriculture a voluminous report covering 426 pages dealing with the world agricultural situation in 1930-31. The volume contains six chapters as follows:—(1) The development of the agricultural crisis; (2) Notes on market conditions (cereals, sugar, coffee, tea, cocoa, wine, olive oil, textile materials, rubber, livestock and wool); (3) International action in connection with agriculture including agreements between Eastern and European countries; Activities of League of Nations; Inter-American Agricultural Conference; The Rome Wheat Conference; The London Conference; International Agricultural credit; (4) Government measures of farm relief, giving a summary of the activities of Governments throughout the world; (5) Action taken by voluntary organisations throughout the world in the interests of producers; (6) The economic conditions of agriculture. In all, some fifty countries are dealt with, including countries such as Japan, Egypt and Soviet Russia, on which information of the kind contained in the volume is not readily available elsewhere.

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Valencia crop prospects have not been maintained in all centres, and it has been found necessary to lower the original estimate.

Regarding Common Oranges and Mandarins, prospective yields have been slightly increased.

Some reduction in the original yield estimate of Lemons appears to be justified. In a few groves prospects have improved, but in a number of others earlier yield indications have not been maintained.

The yields of the various citrus fruits as indicated on present prospects are as follows:—

	Bushels.	Bushels.
Navels . . . . .	754,000	
Valencias . . . . .	1,163,000	
Common and other Oranges . . . . .	490,000	
		2,407,000
Mandarins . . . . .		500,000
Lemons . . . . .		370,000
		3,277,000

This book is a remarkable record of international activities, and should prove of the greatest value to economists and students of world-wide agriculture. One fact is outstanding with regard to agriculture as well as in relation to human relationships, namely, the brotherhood of man. We are slowly realising that the world is an economic unit or body, each nation being a member of that body. When one member suffers, the others suffer in proportion. The ideal is harmony and progress. The International Institute of Agriculture is to be congratulated on its comprehensive work.

Jinks: "I see that a famous man has been saying four hours' sleep is enough for anyone."

Blinks: "Pooh! that's nothing. I've a two-year-old boy at home who knew that a year ago."

"Always mind your own business," said the sage. "It doesn't pay to get mixed up in other people's quarrels."

"I don't know!" replied the young man. "I'm a lawyer."



# QUEENSLAND.

**Gympie (15/4/32).—**A meeting of fruitgrowers to consider the rules of the proposed Wide Bay Fruitgrowers' Packing and Marketing Co-operative Association was held on April 2. Rules were adopted setting out that the objects of the Association were to act as agents in the Wide Bay district for the C.O.D.; to purchase, pack and market fruit supply requisites; and to make contracts with members requiring them to sell all or any part of their products exclusively to or through the Association. The capital is to be raised by the issue of 500 shares at £1 each—not less than 10 (ten) and not more than 100 to be purchased by one member.

A provisional board of directors, comprising Messrs. M. Buchanan, acting Chairman, C. C. Cullen, W. Williams, A. Nagel, and W. Craig, was appointed. A deposit of  $\frac{1}{4}$  of the price of the shares will be required on application, the balance to be called up when deemed necessary.

**Rainfall.**—The rainfall for March at Gympie was only 77 points, the lowest March record since 1915, and the second lowest since records were first taken in 1870. On the 4th of the month rain fell, and although very welcome, a further fall is needed to fully develop the oncoming Banana crop.

The Gympie Ward Annual Conference of Local Producers' Associations was held in the Town Hall, the representatives present being:—Messrs. J. T. Tatnell (Chair), J. T. Long, W. Sandercock (Amamoor), A. C. Stewart, W. J. Adderley (Wolvi), E. Brabner, delegate to the State L. P. A. Conference, and H. Bath (Green's Creek), G. B. Sutton, H. F. Lowe (Kenilworth), and the Secretary, Mr. F. W. Johns (Cedar Pocket). A resolution was adopted in favor of reorganising the Council of Agriculture, to provide more adequate representation for the producers' Associations. It was decided to protest to the Minister for Customs against altering the tariff duties on cotton and tobacco. A large quantity of tobacco leaf grown at Beerburrum on the Government experimental lands was consigned to the Department of Agriculture for curing in the Government barn, and the results are very gratifying, as a 90 per cent. cure was turned out, completed in 2½ days. The Beerburrum leaf cured was of excellent texture and was exceptionally bright in color. It burnt with a nice white ash, and had a pleasing aroma. After the leaf was taken out of the barn a demonstration of the method of drying was given the tobacco growers.

About six years ago a resident of Gympie obtained from South Australia a

young Pecan Nut tree,

which he planted at the rear of his residence; the tree has now attained a height of approximately 28 ft., and is now carrying a heavy crop of nuts, which resemble in some respects the English Walnut. The thick foliage makes it an excellent shade tree, which should become popular in Queensland.

The recent dry weather has considerably reduced the number of cases of Bananas, Papaws, etc., consigned from this district, but now that good rains have come there is a marked difference in the foliage of the plantations, but there will not be much increase in output until about three months' time. For the first two weeks of this month the rainfall exceeded 10 inches, and there is every indication of the usual downpour at this season of the year.

A meeting of the Gympie Fruitgrowers' Association was held on April 5. It was decided to carry on with the packing shed until the registration of the new company. There was a difference of opinion regarding the services rendered to Sugar Banana growers, and Mr. Euston tendered his resignation.

## DEATH OF MR. WILLIAM ROBSON.

### Brisbane Loses an Esteemed Fruit Merchant.

All connected with the fruit industry throughout Australia greatly regret the death of Mr. William Robson, managing director of Robson's Ltd., licensed farm produce agents, Brisbane, Queensland. The late Mr. Robson was widely esteemed: he was connected with the fruit and produce trade in Brisbane just on forty years, during which time he worked up one of the leading businesses in the city of Brisbane.

The business, however, is being carried on as usual, along the sound lines developed by Mr. William Robson. His son, Mr. Wm. S. Robson, is taking the management, and all of the old staff (most of whom have been with the company for many years) are being retained. During the many years of business the confidence of growers in all the States has been secured and the present management is confident that they will be able to retain the goodwill and business of their clientele.

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New South Wales: N.S.W. Central Citrus Assn. Ltd.  
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## Our Open Column.

Letters of interest concerning the fruit industry are welcome.

The Editor is not responsible for views expressed by correspondents.

### Marketing Citrus in Melbourne.

To the Editor, "Fruit World," Melbourne.

Sir,—The action of the Secretary of the Murray Citrus Co-operative Association (Aust.) Ltd. in publishing comparisons of prices in the "Citrus News" (April 1) indicates that Mr. Underwood has a very poor knowledge of marketing methods, and further the said comparisons are unfair, and his offer to allow growers to inspect the account sales at his office is not playing cricket.

I desire Mr. Underwood to go a step further in his comparison, and I will produce figures to prove that the firm whose account sales are lying on his (Mr. Underwood's) table has done better for the Berri growers than the much-boomed accredited agents of the Murray Citrus Association, even allowing for the fact that growers' interests have been safeguarded by the supervision exercised by the Market Manager.

In a desperate effort to hold the grower, Mr. Underwood has resorted to unfair tactics, which will not be appreciated by fair-minded growers—split lines have for years been the bugbear of the people connected with the Melbourne market, no matter what the market is. What is to stop an agent from returning fictitious prices, and not in accordance to sound business principles?

Mr. Underwood has gone to a good deal of trouble to publish comparisons of one grower's split line. Who knows that this is not a trap, and that the accredited

agent was working in collusion with the Citrus Association? When growers are considering this matter, they should not overlook this aspect.

Growers, note the following:—The accredited agent for the date mentioned in the comparison of account sales returned the grower 8/-, 9/-, 10/- for standard packed fruit.

The Market Manager's report on prices for those dates mentioned were 5/- to 8/-, specials 6/- to 9/-, wrapped 7/- to 10/-; it will be seen that the grower got more for his standard than the Market Manager's value for special wrapped—Mr. Underwood evidently overlooked this fact, or doesn't the Market Manager know his business? I wonder how many Association growers receive the prices reported by the Market Representative? If they did, how much waste was shown on their account sales?

How much waste did the outside agent show his grower?

This agent has been outside the Citrus Association, although having repeatedly applied for appointment, and because certain South Australian growers have sent to them and have been satisfied, they have received a good deal of unfair criticism from the Executive of the organisation, and much of the criticism has been quite unfair.

I have refrained from criticising the market arrangements of the Association, but now in fairness to the outside agents must do so. First of all, the Association will hold out that seven agents are sufficient to sell the entire citrus crop. This statement is ridiculed by the trade in Melbourne, as many firms purchase cheaply from the loaded citrus agents and sell at a handsome profit.

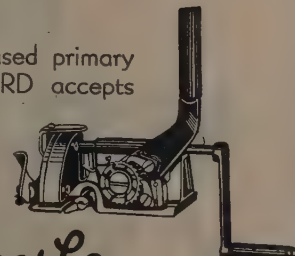
Has the Association at times attempted to increase its

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These gratified users have expressed entire satisfaction with this super quality product.

"Aero" brand Arsenate of Lead is so light that it readily mixes in the spray tank, where it suspends so perfectly that it gives the maximum coverage, it also clings well to the foliage. It is so impalpably fine that you can spray all day without a choke in the spray nozzle.

The arsenical content of "Aero" brand Arsenate of Lead is so high that it ensures the fullest protection against codlin, yet the free arsenic oxide content is so low that it will not burn or scald the foliage. "Aero" brand is indeed a superlative quality Arsenate of Lead, and it is no dearer than inferior arsenates.

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agents? If so, who were the ones against it, or what was the argument against increasing?

I issue a challenge to Mr. Underwood; I will not pick out a split line (Mr. Underwood should have known better than to do this); but if Mr. Underwood will produce the account sales of all the Berri growers for last season, I will produce the account sales of the outside agent, both lots of account sales can then be published side by side.

I think, however, that Mr. Underwood will not accept this challenge. The comparisons already published are an insult to the intelligence of any grower who knows the first principles of marketing. I have known of instances where growers have sent split lines, and then refused to send again to the agent who returned ridiculous prices because they know full well that sooner or later the "building" agent would have to come back to earth.

H. BELL.

Melbourne, April 9, 1932.

## Answers to Correspondents.

"Anti-codlin," Nuriootpa, S.A., writes:—(1) Can you let me know if reliable tests have been made concerning the quality or keeping properties of Apples sprayed with oil, in comparison with those sprayed with arsenate of lead alone, and the results.

(2) Has sulphate of nicotine been proved to be effective as an ovicide on the surface of the fruit?

Answer (by J. M. Ward, Supt. of Horticulture, Victoria):—

(1) No exhaustive tests have been made concerning the quality or keeping properties of Apples sprayed with oil in comparison with those sprayed with arsenate of lead only, but it was found in the competitive tests for the control of codlin moth in the season 1930-31, conducted by officers of this Department, that Apples sprayed with the arsenate-oil-casein combination, held up better after cool storage, and the skin was clearer and brighter in appearance. The maximum oil dosage in the fruit referred to was  $\frac{1}{2}$  galls. to 80 galls. of spray. Extract from report of tests attached.

(2) No tests have been made in this State as to the ovicidal value of nicotine sulphate, but tests carried out by the United States Department of Agriculture prove that as an ovicide, nicotine sulphate is not effective.

It was found in these tests that a percentage of the eggs of certain moths were devitalised, but in no case was the percentage satisfactory.

In the case of codlin eggs, it was found in one of the tests that 95.48 per cent. of the eggs hatched after treatment with one pint nicotine sulphate, 6 lbs. of soap to 100 galls. of water. On plants untreated, 96.84 per cent. of the grubs hatched.

It was also discovered that newly-laid eggs were more easily devitalised than those which had been laid for some days.

P.S.—The Apples referred to in No. (1) were kept in the Government Cool Stores from February 25 till June 15, 1931. They were then removed to the Horticultural Offices and kept under observation till July 7.

\* \* \* \* \*

Extract from report which appeared in the "Journal of Agriculture," Victoria, October, 1931, page 494.

### CODLIN MOTH CONTROL.

#### Appearance of Fruit.

"There was no important difference observable in Pears from the trees sprayed with the different preparations. But Apples from the trees sprayed with the oil-arsenate-casein combination, and from those sprayed with the arsenate-casein spray were brighter and more uniformly colored. Both the vegetable spreader contained in arsinette and the gelatine liquid spreader caused a blotch spray which not only rendered the fruit unsightly, but gave it the appearance of containing much more residual arsenic than it actually did. The Apples treated with the oil-arsenic combination had the better appearance when held after cool storage, and their keeping quality appeared to be improved.

"The experiment was not on a sufficiently large scale to enable a definite conclusion to be arrived at, but the indications are that a reduced dosage of oil, say  $\frac{1}{2}$  gallon

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to 80 in the later sprayings, would have the effect of improving the keeping quality of some varieties of Apples."

Answer (by G. Quinn, Chief Horticultural Instructor, S. Aust.).—

(1) Although we have stored Apples sprayed with arsenate of lead followed by oil, we have not observed any difference in the keeping qualities of these, as compared with the fruit sprayed with lead arsenate alone.

(2) We have used sulphate of nicotine (Black Leaf 40) with seemingly good effects in the later sprayings.

In general reference to the above replies, it must be stated that in the matter of the stored fruits, no special tests provided with suitable and comparative check cases of fruit sprayed with various compounds have been made, but I have arranged with the manager of the Blackwood Experiment Orchard to make keeping tests with this season's fruit, sprayed with different compounds against codlin moth.

I am afraid that the ovicidal values of different sprays can only be reliably determined by adopting much more detailed methods of research than is afforded by the final results in moth-free fruit, as observed on trees sprayed in the open. To what extent the spray may destroy larvae of codlin moth before they penetrate deeply has not yet been determined.

Yates' Annual.—Yates' Annual for 1932 (A. Yates & Co. Ltd., Sydney) is comprehensive and well illustrated. There are lists of flower and vegetable seeds, bulbs, Roses, flowering and ornamental plants, trees and shrubs, fruit trees, climbing plants, also spraying materials, manures and fertilisers, etc.

## LEAF SCORCH.

"W.R.P." writes:—In the February issue of the "Fruit World" I saw an article in reference to Jonathan Apple trees, put down to sun scorch in conjunction with dry conditions. I have had something of the same thing on Dunns Apple trees for the past two or three years, and this season it has spread to other varieties of Apples, and I am sure it is not all sun scorch, but a disease of some description. I also have had our local inspector on the job, but he can't give me satisfaction. A great lot of the trees look very miserable, no fresh green foliage and fruit not up to standard. I am enclosing a few leaves for your guidance.

You could make enquiries and let me know your opinion of same, also if an autumn spray would be beneficial.

Answer (by F. M. Read, M.Agr.Sc., Department of Agriculture).—I have examined the specimens of leaves submitted, and find that all except one of the leaves is affected by a scorching of the margins which is not due to a fungus, and which can not be benefited by any fungicidal spray, such as Bordeaux mixture or lime sulphur.

The appearance of these leaves conforms to the description of "leaf scorch" in my article; but one must be in possession of detailed information on the trees and soils in question before one can say just what factor is responsible.

The scorching effect of the sun on very hot days is the ultimate cause of the actual scorching; but more important are the underlying factors which made the tree susceptible to this. It may be waterlogging of the soil at certain times of the year restricting the root development. It may be insufficiency of irrigation in an irriga-

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These contain respectively :—

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**2 parts sulphate of ammonia**  
**1 part potash**  
 and  
**5 parts superphosphate**  
**1 part sulphate of ammonia**  
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and are excellent buying at current list prices. . . . .

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tion district allowing the soil to become too dry. It may be very poor soil quite unsuitable for root development. It may be soil too rich in nitrogen and too low in potash.

These and other points are, I think, clearly set out in my article, and should be studied by the man on the spot, who alone has the required information at his hand. I can not from this distance say just what is the responsible factor. I am, however, sure that on these leaves the trouble is physiological and not due to a "disease" in the sense in which I think the grower is using that term.

One of the leaves shows spotting due to a fungus, in addition to the marginal scorching. If the sample sent is a fair one, and this occurs only to this extent on a small percentage of leaves, it is unimportant, and no action is advised. It is not even certain whether this fungus caused the spots or invaded them after the scorching had taken place. Further observations are indicated.

The recommendations for the control of "leaf scorch" are given in my article published in the "Fruit World" for February. I also suggest that the trees might be sprayed every week or ten days in bad cases from just after leaf burst for a couple of months, with a solution of 10 lb. sulphate of potash in 100 gallons of water. This might be worthy of a trial.

**Shy Bearing Apricot Tree.**—"Amateur," Taradale, N.Z., writes:—I have an Apricot tree which has only borne half a dozen or so fruit each year for about five years. Seven years ago it had a small crop, perhaps a bushel, while a smaller-variety Apricot standing next to it bears a splendid crop every year. Could you suggest what is the reason of it not bearing fruit, and the treatment to be adopted? The fruit are very large and richly colored,

and the tree appears quite healthy, though it does not increase in size.

**Answer.**—The experience with your Apricot tree is similar to that in other fruitgrowing districts, with the exception of Central Otago and parts of the Coromandel Peninsula, where good crops of most varieties can be depended on, if late frosts do not occur. The outstanding characteristic of those localities is the low rainfall, which seems to suit the crop, specially at the time of setting. The small variety that crops well consistently is probably that known as Newcastle, which commonly has those generous qualities. Treatment that may be expected to encourage other varieties to bear would be to plant the trees on the sunny side of a wall and train them as espaliers—a method of production that is too expensive for commercial purposes. Possibly a variation of the pruning system would have some effect.—From "N.Z. Journal of Agriculture."

#### BOX TESTING DEVICE.

A revolving box testing drum has been installed at the premises of the Council for Scientific and Industrial Research, Albert-street, E. Melbourne. The box, loaded with its contents, is placed inside the drum; then, as the drum revolves, the box receives certain bumps and knocks, all of which can be recorded. The weaknesses are thus quickly disclosed. Some valuable improvements in the packing of certain Australian goods for export have been brought about as a result of these tests.

A woman will have her way, even if it is a roundabout way.



## Insect Pests and Fancy Apples Don't Grow on the Same Trees

USE  
KLEENUP for—  
San Jose Scale  
Oyster Shell Scale  
Green Aphis  
Rosy Aphis  
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Peach Aphis  
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**South Australian Agents**—Silbert, Sharp & Bishop, Rundle Street, Adelaide.

**Queensland Agents**—Australian Fruit and Produce Co. Ltd., 6 Ultimo Road, Sydney, N.S.W.

**West Australian Agents**—Paterson & Co., Perth.

## SYDNEY HARBOR BRIDGE.

### Tunnel Originally Suggested.

Australian Workmen Get £3,000,000 in Wages.

**T**HE OUTSTANDING EVENT in current Australian history is undoubtedly the completion and opening of the Sydney Harbor Bridge. Away back in 1815, Francis H. Greenway, Government Architect, advocated the construction of a bridge in the vicinity of the North Shore across the harbor. This proposition came to naught. In 1890 a Royal Commission recommended a bridge in preference to a tunnel. Ten years later, competitive designs and tenders were called for. The Bridge proposal had many vicissitudes in Parliament, till in 1922, the Government's assent was given for its construction, the contractors being Messrs. Dorman, Long & Co.

### Some of the Equipment Used.

Many and varied were the machines used, and one could have spent a great number of hours watching the operation of each. These machines included large reamers, hydraulic rivetting machines, batteries of Asquith drilling machines, and on the bridge itself, hydraulic jacks, riveters, cranes, etc.

### Australian Material Used.

It is very gratifying that so much Australian material has played its part in the building of this colossal bridge, for colossal it is. It ranks as the largest and heaviest arch bridge in the world, although 25 inches shorter than the recently constructed bridge in New York. It is 160 feet wide, as against a width of 90 feet of the American structure, and its arch contains 37,000 tons of steel, as against 16,000 tons of its American rival.

Of the 54,500 tons of steel and rivets, the Broken Hill Pty. Co. Ltd., of Newcastle, supplied 10,500 tons, and 3,500 tons came from the Australian Iron and Steel Co. Ltd.

Over 5,000,000 rivets were supplied by McPherson's Pty. Ltd., of Victoria.

### Important Part Played by Lubrication.

The lubricants most extensively used were supplied by the Vacuum Oil Co. Pty. Ltd.—light oils for use in the high speed machinery, such as electric generators and motors, soluble oils for the hydraulic riveters, and heavier lubricants for cranes and other heavy machinery.

### Nearly £3,000,000 Spent in Salaries and Wages.

The granite for the facing of the huge pylons at the end of the bridge was quarried and shaped at Marouya, N.S.W., being shipped to Sydney, ready for placing in position. Even at the quarry, machinery played its part, for we find two 300 horse-power engines that supplied the power for the quarrying and finishing equipment.

Other Australian material included cement, supplied by the Kandos Cement Co. Ltd., sand from the Nepean Sand and Gravel Co. Ltd., and paint from the firm of Lewis Berger (Aust.) Ltd.

The expenditure in Australia totalled over £3,000,000 much of this having been paid away in salaries and wages.

### Tribute to Australian Workmen.

In regard to the calibre of the workmen, it is sufficient to quote from the report by Mr. Lawrence Ennis, O.B.E., Director of Construction, in which he states: "The Australian workman proved to be as good a tradesman as any I have had experience with in Britain or America. They gave us of their very best, and the successful completion of the work could never have been attained without their whole-hearted co-operation."



British Empire "float" passing over the new Sydney Harbor Bridge. There were other floats depicting the fruit industry.



# Planting Fruit Trees.

## Programme for Murrumbidgee Irrigation Areas.

The planting committee of the Murrumbidgee Irrigation Area recently recommended the planting of canning Peaches to meet the needs of the canned fruit export trade. The varieties commended were:—Golden Queen, Phillips' Cling, Pullar's Cling and Peak Cling.

**Plums.**—The following Plums were also recommended for planting to a limited extent: Santa Rosa, Satsuma (Blood Plum), and Angelina Burdett—the fruit being desired for jam making.

Planting of Quinces was also recommended.

As regards Pears, the Williams variety was deemed to be most suitable.

**Nuts.**—The Committee considered that the prospects were good for Almond production and recommended planting of the following varieties: Hatch's Nonpareil, I.X.L., Ne Plus Ultra, Brand's Jordan, and Golden State.

As regards Prunes, the Committee was of the opinion that there should be no further plantings for the time being.

**Grapes.**—Any further plantings which were contemplated should be on a very limited scale. For planting the varieties most suitable were: Hunter River Riesling, Rutherglen Tokay, and Doradilla. The further planting of table Grapes was a hazardous proposition.

Messrs. John Brunning & Sons, fruitgrowers and nurserymen, of Somerville, Vic., give the benefit of their experience as follows:—

Good drainage is imperative. No matter what else is done in the way of manuring, spraying, windbreaks, etc.—the value of these essentials is vitiated unless the drainage is right. Good drainage represents the difference between success and failure.

### Mistakes to Avoid When Replanting.

It is always a mistake to replant orchards with the same class of tree which it contained previously; that is, at any rate, where irrigation is not practised. Apples will not grow satisfactorily where Apples previously grew; Pears, where Pears grew; Apricots, where Apricots grew, and so on.

One may get the young tree to start successfully if new soil is carted to the tree position, but it will never become a strong, robust growing tree, because it stands to reason that if a tree has been growing in the same position it naturally has to a large degree absorbed the original soil constituents essential to its well-being during its existence.

With the loss of these natural plant foods, the young fruit tree, with its small root system, has very little hope to thrive successfully, but change the variety of tree replaced, from a pip producing tree to a stone fruit, and the latter, providing drainage is good, will thrive. Many good Apple orchards have been planted after Peaches, Plums, or Apricots have been taken out, and have grown and borne fruit with remarkable success. One of the exceptions are Pears, which may be substituted after Apples, as they are much deeper rooting, and penetrate new soil which the Apple, by reason of its shallow rooting system, has missed.

Apples will not thrive successfully after Pears because the same soil foods are required to maintain either.

For the export trade in Apples, the following varieties are recommended:—Willie Sharp, Dunn's (where suitable), Cleopatra, London Pippin, Reinette, Delicious, Rome, Red Statesman, Rokewood, Rainer, Granny Smith, Tasma, Jonathan, and Stayman Winesap.

Pears for export (where pre-cooling is available):—W.B.C., B. Bosc, Glou Morceau, Josephine, Packhams, Doyenne du Commerce, Winter Nelis, P. Barry.

A full list of recommended varieties of Apples and Pears for local and interstate trade was published in the "Fruit World Annual," January, 1932, together with recommended varieties of Plums, Damsons, Prunes, Apricots, Peaches, Cherries, Nectarines, citrus, etc.

Generally speaking, the varieties named in the list are the varieties mainly in demand and most suitable for the purposes required, and will grow in most districts quite profitably, but one or two varieties are always outstanding.

## Fruit Trees

## Fruit Trees

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**BRUNNING Quality! Unsurpassed.**

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Ample stocks of primest quality Trees now available. Every Tree is guaranteed perfectly clean, healthy, free from insect pests, true to name, and should prove a prolific bearer of finest fruit.

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In order to meet the times, and because of a reduction in wages, Goodman's price per 100 for all Deciduous Trees except Cherries is now

Select Your  
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All Best Commercial  
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CROFTON  
DELICIOUS  
DOUGHERTY  
DUKE OF CLARENCE  
DUNN'S (Munroe's Fav-  
orite)  
EDNA MAY  
FAMEUSE (Pomme de  
Neige)  
GLENGYLE RED  
GRANNY MAC  
GRANNY SMITH  
GRAVENSTEIN  
IRISH PEACH  
JOANATHAN  
KING DAVID  
LALLA  
LONDON PIPPIN (Five  
Crown)  
RED GRAVENSTEIN  
MCINTOSH (RED)  
NORTHERN SPY  
REINETTE DU CANADA  
ROKEWOOD  
ROME BEAUTY  
SCARLET NONPAREIL  
STATESMAN  
STAYMAN (Winesap)  
STURMER  
STEWART  
TASMA (Democrat)  
WILLIAM'S FAVORITE  
WILLIE SHARP  
WORCESTER PEAR-  
MAIN  
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BRANDE'S JORDAN  
I.X.L.  
NE PLUS ULTRA  
PAPERSHELL (Hatch's  
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#### APRICOTS.

On Apricot and Plum  
Stocks:  
BLENHEIM (Shipley)  
EARLY MOORPARK  
HEMSKIRKE

MANSFIELD (Seedling)  
MOORPARK  
NEWCASTLE (Early)  
OULLINS  
ROYAL (American)  
TILTON  
TREVATT

#### CHERRIES.

BEDFORD'S PROLIFIC  
BING  
BURGSDORF'S (Seedling)  
EARLY LYONS  
EARLY RIVERS  
EARLY PURPLE GUIGNE  
FLORENCE  
MORELLO (Kentish)  
NAPOLEON (Bigarreau)  
NAPOLEON (Royal Ann)  
NOBLE  
ST. MARGARET  
TARTARIAN (Black)  
TWYFORD (Figarreau)  
WERDER'S EARLY  
BLACK

#### NECTARINES.

EARLY RIVERS  
GOLDMINE  
MRS. DR. CHISHOLM  
NEW BOY

#### PEACHES.

ALEXANDER'S EARLY  
ANZAC  
BELL'S NOVEMBER  
(Dunhelm)  
BRIGGS RED MAY  
ELBERTA  
FOSTER  
GOODMAN'S CHOICE  
GOLDEN QUEEN

HALE'S EARLY  
HIGH'S EARLY CANADA  
LE VAINQUEUR  
LOVELL  
LEVIS CLING  
MAYFLOWER  
PELORA CLING ("Peach  
of Gold")  
PEAK CLING  
PHILLIPS' CLING—Dor-  
mant Buds, 60/- per 100  
PULLAR'S CLING—Dor-  
mant Buds, 60/- per 100  
ROYAL GEORGE (Slip)  
SALWAY  
SELMA CLING  
THIELE'S CLING—Dor-  
mant Buds, 60/- per 100  
TRIUMPH  
WIGGIN'S  
ZERBES

#### PEARS.

Leading Export Kinds.  
BARTLETT (William Bon  
Chretien)  
BEURRE BOSCH  
BEURRE CLAIRGEAU  
DOYENNE DU COMICE  
CLAPP'S FAVORITE  
GLOU MORCEAU  
HOWELL  
JOSEPHINE DE MALINES  
KIEFFER  
PACKHAM'S TRIUMPH  
VICAR OF WINKFIELD  
(Napoleon)  
WINTER COLE  
WINTER NELIS

And, All Other Varieties, including:—  
PERSIMMONS, PASSION FRUIT, GRAPE VINES,  
CURRANTS, GOOSEBERRIES, RASPBERRIES,  
STRAWBERRIES, RHUBARB, MULBERRIES, and  
MISCELLANEOUS FRUITS, CHESTNUTS, FILBERTS,  
LEMONS, ORANGES, etc.

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#### PLUMS.

ANGELINA BURDETT  
COE'S GOLDEN DROP  
DAMSON CRITTENDEN  
DAMSON KNEESHAM  
DIAMOND  
EARLY ORLEANS  
GRAND DUKE  
GREEN GAGE  
JEFFERSON  
MAGNUM BONUM YEL-  
LOW (also known as Egg  
Plum)  
POND'S SEEDLING  
PRESIDENT  
RED CHERRY

#### PRUNES.

D'AGEN (South Austra-  
lian Type)  
FELLEMBERG (Italian)  
GIANT  
ROBE DE SARGEANT  
(identical with Prune  
d'Ente)  
SPLENDOR  
SUGAR  
TRAGEDY

#### JAPANESE PLUMS.

APPLE  
BALLENA  
BEAUTY  
BURBANK  
CLIMAX  
DELAWARE  
DORIS  
FORMOSA  
KELSEY  
OCTOBER PURPLE  
SANTA ROSA  
SATSUMA (Blood Plum)  
SHIRO  
WICKSON  
WILSON  
WRIGHT'S EARLY

#### QUINCES.

APPLE-SHAPED  
CHAMPION  
PINEAPPLE  
SMYRNA  
VAN DIEMAN  
MISSOURI MAMMOTH

#### WALNUTS.

CHABERTE  
ENGLISH (Common)  
ENGLISH (Papershell)  
FRANQUETTE

W.McF.



ing because of the fact that climatic, soil and rainfall conditions are just right for the perfect fruit.

No one would ever think of planting Cleopatra, Dunns, or Five Crown Pippin in a damp flat situation, because those conditions would result in loss with bitter pit, cracked stalks, and crinkle, with liability to black spot, etc.

The main irrigation districts throughout Victoria and N.S.W. have found that Pears other than William's Bon Chretien do thrive and are a profitable investment for fresh fruit and export trade; such varieties are Josephine de Malines, Winter Nelis, Packham's Triumph, Glou Morceau, Beurre de Anjou, Comice, and others.

Prunes should be one of the best investments from a grower's canning point of view, because if a little forethought is used after a few good-crop-years, there is always bound to come the light crop, when supplies are scarce, and keeping some for that period will always prove remunerative.

Plums are grown over a very wide area—in fact, any district where a rainfall of 20 inches and over, Plum trees will grow, and bear fruit profitably. The main consideration is the market absorption point, local or distant. Is it available within easy range and facilities for quick despatch?

Contracts for a number of years with the jam companies is the usual method of disposing of the crop.

The ideal combination of varieties from pollenisation and profitable viewpoints towards a successful contract is:—Santa Rosa with Satsuma pollenisers in Japanese Plums, and in English Plums Angelina Burdette and Diamond, and Grand Duke, President, and Jefferson.

Apricots are more sensitive in their choice of position than some other deciduous trees. Soils must be well drained and the area free from late frosts and extreme dryness. Being an early cropper, has much to recommend it for jam, canning and dried purposes.

Peaches are confined to certain areas which must be well drained—wet soils will rot the roots and destroy the tree. Any sandy soil with a fair rainfall of 25 inches will grow Peaches. The earlier to early midseason varieties in Brigg's Red May, High's Early Canada, Mayflower, Wiggins, Sweet Seventeen, Hale's Early will find ready markets.

Varieties for canning purposes, irrigation is essential to bring the fruit to size required and to provide sufficient moisture to ripen the later varieties. These should be established in districts where cannery and cool store accommodation is available to quickly dispose of the crop.

Nectarines are essentially a fresh fruit crop. No par-

ticular variety so far discovered has canning commercial value.

Anywhere a Peach will grow a Nectarine will thrive—as they belong to the same species—the Nectarine actually being a smooth-skinned Peach.

Cherry-growing is confined to districts like Young, Orange, N.S.W.; Lilydale, Red Hill, in Victoria. Good rich deep soils, combined with ample protection to create warmth in winter, and protection from hot winds of summer go far towards successful growing of Cherries—not forgetting good drainage.

Citrus are more tropical fruits and do not thrive in the colder climates like Tasmania, but require plenty of water throughout the summer for the winter crop.

Lemons of the citrus family cover a wider area for growing fruit of good quality, but, like other members of the family, require substantial waterings in the dry period. Lemons around Melbourne bear three-quarters of the year round.

Small fruits, such as Gooseberries, Strawberries, Currants, etc., should be confined to the hilly country, where the climate is of lower average temperatures, they being shallow rooting, extreme dryness will kill the plants—the exception being, of course, where watering may be carried out during summer time.

#### THE PLANTING OF FRUIT TREES.

As regards conditions for New South Wales, some notes are to hand from L. P. Rosen & Son, fruit tree nurserymen, of Carlingford, N.S.W., giving a list of varieties which they consider best for planting. The list is as follows:—

**Apples.**—For Export: Granny, Jonathan, Rome, Stayman and Democrat. For Local Market: Granny, Jon., Rome, Delicious, Stayman, Demo., London Pippin, Lalla, Carrington Red, Gravenstein, Kirks, Lord Nelson, McIntosh, Mobb's Royal, Willie Sharp.

**Pears.**—Mainly Williams, Packhams, B. Bosc, Clapps, Howell, Josephine, Keiffer, W. Cole, and W. Nelis.

**Plums.**—English out of favor at present, but Ang. Burdette, President, Grand Duke, Excelsior and Ponds.

**Prunes.**—Also out of favor at present. Best varieties are:—Prune D'Agen, Robe de Sargeant, and Sugar.

**Jap. Plums.**—Blood, Beauty, Burbank, Narrabeen, October Purple, Paterson Early, Santa Rosa, Wilson, Wickson.

**Peaches.**—Aunt Becky, Bells, Blackburn, Briggs, Carman, Edward VII., Elberta, Golden Queens, Hales, J. H. Hale, Phillip's Cling, Pullar's Cling, Shanghai Seed, Wiggins.

## L. P. ROSEN & SON

Fernhill Nurseries, Pennant Hills Rd., Carlingford, N.S.W.

Are Now Booking Orders For:—

All Kinds of Fruit Trees, including Citrus, of which 150,000 are available, on Lemon, Orange and Trifoliata Stocks, in first-class, extra well-grown stuff, budded from selected orchards of best bearing types.

We can also offer some 25,000 Valencia, 10,000 Washington, 2,000 Eureka, 2,000 Marsh, and 2,000 Emperor, grown from buds supplied by the N.S.W. Bud Selection Society.

Quantity Prices Freely on Application.

Catalogues post free.

**SPECIALTIES:—Fruit Trees, Rose Plants andKunde Secateurs.**

**Apricots.**—Newcastle, Oullins, Moorpark, Camden, Hemskirk, Shipleys, Trevatt, Tilton.

**Cherries.**—Burgdorff's, E. Lyons, Florence, Napoleon, St. Margaret, Noble, Black Republican.

**Oranges.**—Valencia, Washington, Joppa, Med. Sweet, White Siletta.

**Lemons.**—Eureka, Lisbon, and Villa Franca.

**Mandarins.**—Emperor, Ellendale, Early Imperial, Oonshii, Glen Retreat.

**Grapefruit.**—Marsh, Duncan and Seviles.

**Berry Fruits.**—Strawberries Creswell, Illawarra; Loganberry red.

**Grape Vines.**—All leading fresh, wine and dry varieties. Passion vines as fillers.

**Persimmons.**—Tenanaschi and Yemon.

**Loquats.**—Heards, Boasleys.

**Quinces.**—Missouri, Portugal, Reas.

**Nectarines.**—Goldmine and New Boy.

**Almonds.**—Paper Shell, Golden State, I.X.L.

**Pecan.**—Worth trying in most places as being very promising. Regarding suitability of soils and situations, this must be guided by local experience to a large extent, as conditions vary so much, making a hard and fast rule impossible.

### AUSTRALIAN NURSERIES.

Hurstville and Camden, N.S.W.

F. Ferguson & Son, Proprietors.

The above nurseries, situated at Hurstville, nine miles, and Camden, forty miles, from Sydney, are recognised to be among the most important nurseries in the State. They are easily accessible by either train or road from

Sydney. The opening up of the Sydney-East Hills railway with Kingsgrove station, within easy distance of the nurseries, has greatly facilitated transit. Camden is also conveniently reached by rail from Sydney, via Campbelltown.

The Ferguson family entered the nursery industry in 1848, and subsequently, during those 84 years the business has been developed on sound lines. An examination of these nurseries by a representative of this journal, through the courtesy of Mr. Ferguson, showed every class of young fruit tree, also Roses and shrubs grown under modern conditions. There are 300,000 young citrus trees available for sale. This line of trade is Mr. Ferguson's speciality. By means of high quality production a satisfactory trade has been worked up in Australia and abroad.

Limited supplies of citrus trees from wood supplied by Bud Selection Committee are available.

These nurseries have found employment for about 50 to 60 men. Readers will find much of interest in a perusal of Messrs. Ferguson & Son's catalogue, procurable on application.

### FRUIT TREE AND ROSE NURSERY.

At the nurseries of Messrs. Swane Bros., Ermington (N.S.W.), fruit trees and Roses are specialised; the manager is Mr. E. Swane.

The soil is suitable for the growth of young fruit trees and Roses. Expert attention is paid to every branch of production, also packing for delivery. In fruit trees both deciduous and citrus trees are grown for sale. About 100,000 fruit trees are disposed of annually, and upwards of 50,000 Rose plants, both new and old, of bush and climbing varieties.

The firm's catalogue contains much useful information, copies being obtainable on request.

### S. D. JACK & SONS, ERMINGTON (N.S.W.).

The above firm, the establishment of which dates back 40 years, is situated at Ermington, 1½ miles from Ryde Railway Station, and about 11 miles from Sydney, and is easily reached by motor, train or bus.

Mr. Jack, Senr., was one of the early pioneers of N.S.W.: long before the advent of mechanical horticultural methods, he laid the foundation of a successful business. Mr. Jack's two sons, who now carry on the business, have labored most strenuously to bring their nursery to a high standard, specialising in fruit trees and Roses.

The nursery, on examination by a representative of the "Fruit World," disclosed about 100,000 healthy young citrus trees and 80,000 summer trees of other varieties, which are all ready to meet the demands of a large clientele.

The Roses, numbering about 20,000 of all varieties, present a beautiful spectacle, and only the best of stock are maintained for healthy production. This firm's products are known in Australia, New Zealand, America, South Africa, India and Europe, to which countries great care has been exercised in packing and transit.

The Skinner system of watering, is in operation. Visitors are welcome at the nursery. A comprehensive catalogue is available on application.

### Health Note.

Mrs. Blabber: "You're looking very happy this morning. Have you had good news?"

Mrs. Gabber: "Just wonderful! My husband has just had a nervous breakdown and we're going to Sydney."

CITRUS

DECIDUOUS

# FRUIT TREES

We are Now Booking for 1932.

OUR TREES ARE TRULY  
"PEDIGREE"

LIMITED QUANTITIES OF TREES TO OFFER  
RAISED FROM CITRUS BUD SELECTION  
COMMITTEE'S WOOD.

Get Our Prices Before Buying Elsewhere

Catalogues  
Gratis.

Correspondence  
Invited.

QUALITY VERY PRIME FOR 1932

**F. FERGUSON & SON,**

Australian Nurseries,

Hurstville - - New South Wales

Also at  
Camden.

Established  
1848.



## FRUIT CROPS IN VICTORIA.

**I**N THE SEASONAL FRUIT CROP report just to hand from the Department of Agriculture, Victoria, the following is stated:—

**Deciduous Fruit.**

Reports have been received from the Supervisors in the different districts as under.

**Bendigo.**—Crop very disappointing. Generally light. Buds promise heavy for the 1932-3 season.

**Warragul.**—Pears: Kieffers and Bosc, fair crop; other varieties, light. Quinces, light; Walnuts, heavy; citrus (Lemons), heavy; Passion Fruit, good crop.

**Pakenham, Garfield, and Tynong.**—Buds show well for a heavy crop for 1932-3 season.

**Heidelberg, Diamond Creek.**—Crops a failure this season. Buds show good for next year's crop.

**Metropolitan** (including Wandin, Silvan, and adjacent districts).—Passion Fruit, 50 per cent.; Lemons, 75 per cent.; late Strawberry crop, very light. Pears and Apples show good bud condition for the 1933 fruit season.

Owing to poor prices prevailing, more fruit has been placed in cold storage than was expected earlier in the season.

**Viticulture.**

In the North-East the wine vintage was unusually late—scarcely any picking before March 30. Though gravities are low, the Grapes, generally speaking, were in very good order; yield good.

In the North-West, similar weather has hampered drying operations considerably. Sultanas dried very slowly. Mould has also caused trouble in some cases.

The recovery after the heavy February rains was very gratifying, and Currants suffered less than was anticipated, but the unsettled March weather wrought further

damage to later sorts, very variable in its incidence. Curiously enough, some blocks that were flooded yielded quite good fruit, better, in fact, than some others where no flooding occurred.

It is too soon to estimate the total damage, even approximately. Had the autumn been fine, the 1932 pack might have equalled that of 1930. Actually it will probably fall short of it by about 20 per cent. or more, whilst grade must suffer an all-round reduction.

Very fine table Grapes have been much in evidence in Melbourne shops and barrows. The stricter enforcement of maturity standards has had a most salutary effect; this has entailed condemning hundreds of cases of the earlier forwardings. Growers seem to forget that Grapes, unlike other fruits, do not ripen after they are picked.

**Citrus.**

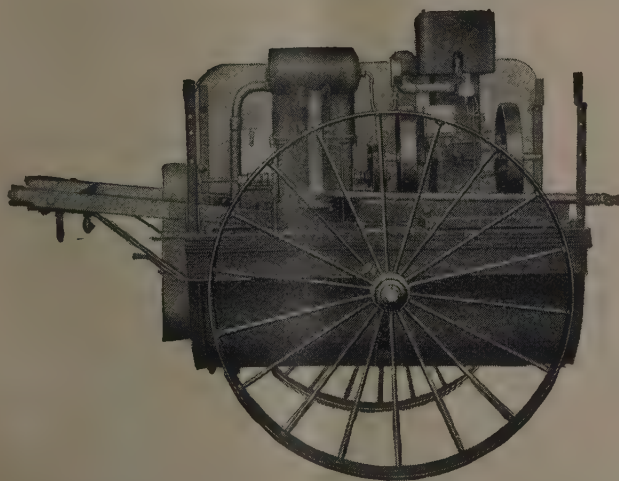
The citrus crop as it continues to mature appears to be heavier than was at first anticipated. The increase in the estimate would be approximately 5 to 10 per cent.

Early Navels and Thompson's are coloring in the Mildura district. The fruit appears to be of a fine quality with a large reduction in the percentage of rind markings.

A pleasing feature is the good results which have followed the strenuous measures undertaken by citrus growers to reduce the red scale. Many growers by frequent and thorough sprayings have reduced the scale infestation to a commercial minimum.

Citrus growers are strongly recommended to refrain from forwarding to market immature citrus fruits. The standard for Navels for the present season has been fixed at 26 cubic centimeters of soda, and steps are being taken to rigidly enforce this regulation. Seed types will be allowed to be marketed providing they pass a test of 30 cubic centimeters.

## Even Competitors Praise "The Buzacott" Fig. 469 Portable Orchard Sprayer.

**One Critic's Opinion:—**

"There's no doubt about it—'The Buzacott' Fig. 469 Spray Cart is a fine, compact, and wonderfully efficient outfit."

**GROWERS!** This is the opinion of all who have inspected the Fig. 469.

**An Asset in Every Orchard**

Write for Further  
Particulars—To-day

**BUZACOTT & CO. LTD.,** Sydney - Lismore - Brisbane

Agents for Victoria:

**CAMERON, SUTHERLAND & SEWARD Pty. Ltd.,**

South Melbourne. Phone—M 2251

CUT THIS OUT

Name.....  
Address.....

# The Fruit Trade

## Market Reports and News Items

### REPRESENTATIVE FIRMS, FRUIT MERCHANTS, AGENTS, EXPORTERS.

Advertising in this Journal.

#### Sydney: NEW SOUTH WALES.

Chilton, F., City Fruit Markets.  
Slater, Jas., City Fruit Markets.

#### Melbourne: VICTORIA.

Bell, Banson Pty. Ltd., Wholesale Fruit Market.  
Cave, F., & Co. Pty. Ltd., Wholesale Fruit Market.  
Davis, J., Pty. Ltd., Wholesale Fruit Market.  
Frankel, H. & S., Wholesale Fruit Market.  
Lister, G., Pty. Ltd., Wholesale Fruit Market.  
Lucas, D. S., 132 Franklin Street, Melbourne.  
Millis, A., & Sons, Wholesale Fruit Market.  
McLean, N. N., Pty. Ltd.  
Mumford, J. G., Wholesale Fruit Market.  
Fang & Co. Ltd., H. L., Wholesale Fruit Market.  
Patrikeos, P. A., Wholesale Fruit Market.  
Producers' Dist. Society, Wholesale Fruit Market.  
Ross, J. W., Wholesale Fruit Market.  
Sang Goon & Co., Wholesale Fruit Market.  
Silbert, Sharp & Davies, Wholesale Fruit Market.  
Stott & Sons, T., Wholesale Fruit Market.  
Tim Young & Co. Pty. Ltd., Wholesale Fruit Market.  
Tong, W. S., Wholesale Fruit Market.  
Wade, H. M., & Co., Wholesale Fruit Market.  
Wilson, H., Pty. Ltd., Wholesale Fruit Market.  
Wing, R. A., & Co., Wholesale Fruit Market.  
Wing, Young & Co., Wholesale Fruit Market.  
Woolf, G., Wholesale Fruit Market.  
Wholesale Fruit Merchants' Assn., J. D. Fraser, Temple Court, 428 Collins Street, Melbourne.  
Young, J. H., & Co. Pty., Wholesale Fruit Market.

#### Brisbane:

Barr, A. S., Fruit Exchange.  
Collard & Mackay, Fruit Exchange.  
Comino Bros. Ltd., Fruit Exchange.  
Cooksley & Co., Fruit Exchange.  
Geeves, H. V., Fruit Exchange.  
Robsons Ltd., Fruit Exchange.  
Whitton, W. J., & Co., Fruit Markets.

#### Hobart:

Eric Burgess Pty. Ltd., 88 Collins Street, Hobart.  
E. R. Cottier Pty. Ltd., Temple Place, Macquarie Street  
Jones, H., Co. Ltd., Fruit Exporters.  
Peacock, W. D., & Co., Fruit Exporters, and at London.

#### Launceston:

Bender & Co. Pty. Ltd., 100 Elizabeth Street.

#### Dunedin: NEW ZEALAND.

Co-operative Fruitgrowers of Otago Ltd.

#### London: GREAT BRITAIN.

Pask, Cornish and Smart, London.  
Margetson & Co. Ltd., Covent Garden.  
Monro, Geo., Ltd., Covent Garden.  
Poupart, T. J., Ltd., Covent Garden.  
Ridley, Houlding & Co., Covent Garden.  
White & Son Ltd., London Fruit Exchange, Spitalfields, E.1.

#### Hull:

The Port of Hull, London and N.E. Railway. Rep. Burns Philp & Co. Ltd., 7 Bridge Street, Sydney.

#### Manchester:

The Port of Manchester Rep., W. J. Wade, 8 Bridge Street, Sydney.

#### Liverpool:

Johnson, T. S., & Co.

#### Bremen:

Fruchthandel, Gesellschaft.

#### Hamburg:

Astheimer, P. H., & Son, Fruchthof.  
Gustav Bey, Hamburg.  
Int. Fruit Import Gesellschaft.  
Lutten, J. H., & Sohn, Hamburg.  
Stier, Aug., Fruchthof.  
Timm & Gerstenkorn.

#### Copenhagen:

INTERNATIONAL Fruit Import Co.

### New South Wales.

**Fruit Sales in England.**—Messrs. Parnham Pty. Ltd., of 31 Queen-street, Melbourne, Victorian representatives of the White Service, advise under date April 14, having received a cable stating that the following prices were realised for fruit shipped in the "Themistocles" to Liverpool:—Jon., 9/6 to 10/-; Cleo., 10/6 to 12/-; Dunn's, 10/6 to 11/6; others, 7/6 to 10/-.

The cablegram received from London, advises that the "Themistocles" fruit arrived somewhat immature, the Jons. and Cleos. being pitted. Victorian Pears, ex "Orontes" and "Moldavia," have met with a good demand:—B. Bosc, 12/- to 13/-; Packhams, 13/- to 15/-; Howells, 12/2 to 9/-. Williams arrived in a variable condition, some being very wasty. Prices for Williams realised from 12/- to 2/-.

**London Fruit Prices.**—A letter has been received from Major H. Dakin, fruit exporter, of Macquarie-place, Sydney, N.S.W., under date April 26, enclosing copy of a cable message received from Messrs. Geo. Monro Ltd., Covent Garden Market, London. The message reads as follows:—"Mooltan"—Apples and Pears generally satisfactory condition. Apple trade slightly easier, but Pear trade very firm. General prices for Victorian and Tasmanian Apples, Cleos. and French Crabs, 10/-, 11/-; Jons., 8/6, 9/6; Shorland Queens, 9/- to 10/-; Cox's, 14/-, 15/-; some spotted, 7/6, 9/-. "Barrabool and Mooltan"—Pears, Tasmanian, trays, Comice 5/-, 8/-, Bosc 4/-, 5/6, Packhams 3/6, 5/-, Capiaumont, Clairegeau 3/-, Howells 3/-, 3/6.

#### South Australia.

**Adelaide (22/4/32).**—Apples (eating) 4/- to 5/- case; do. (cooking) 3/6 to 4/-; Grapes (dark) 8/-, do. white 8/-; Lemons, 8/- to 9/-; Oranges (Common), 10/- to 12/-, do. (Navel) 13/-; Peaches, 8/-; Pears (eating), 5/- to 6/-, do. (cooking) 3/-; Pineapples, 14/-; Pomegranates, 4/-; Quinces, 4/-.

**Sydney (23/4/32).**—The market manager of the Fruit-growers' Federation of New South Wales (Mr. L. T. Pearce) reports prices as follows:—Apples: Cleo., large 7/- to 8/-, medium 6/- to 8/-, small 6/- to 7/-; Del., large 8/- to 14/-, medium 7/- to 12/-, small 7/- to 10/-; Dunn's Seedling, large 5/- to 7/-, medium 5/- to 7/-, small 4/- to 6/-; Five Crown, large 6/- to 7/6, medium 7/- to 7/6, small 5/- to 6/-; French Crab, large and medium 6/- to 7/6, small 5/- to 7/-; G. Smith, large 8/- to 12/-, medium 7/- to 14/-, small 6/- to 9/-; Jon., large 6/- to 9/-, medium 7/- to 9/-, small 6/- to 7/-; King David, large 5/- to 7/-, medium 6/- to 7/-, small 5/- to 6/-; Lady in Snow, large 5/- to 7/-, medium 5/- to 8/-, small 5/- to 6/-; Pears: B. Bosc, large 7/- to 8/-, medium 7/- to 8/6, small 5/- to 6/-; Glou Morceau, large 8/- to 10/-, medium 7/- to 10/-, small 6/- to 8/-; Jos., large 8/- to 9/-, medium 7/- to 10/-, small 6/- to 7/-; Howell, large 5/- to 7/-, medium 6/- to 9/-, small 5/- to 6/-; Keiffer, large and medium 5/- to 6/-; Packham's T., large 7/- to 10/-, medium 9/- to 12/-, small 7/- to 8/-; W. Cole, large 8/- to 9/-, medium 9/- to 11/-, small 6/- to 8/-.

Although large quantities of Apples and Pears are on the market they are moving steadily with only a slight easing in price in the case of Apples that are past maturity. This particularly applies to Duke of Clarence, Jon. and Lady in the Snow. Pears have remained firm. Packham's from S.A. are arriving in poor condition, and B. Bosc are over-ripe. Williams from all sources are practically finished. Jon. Apples, both local and Tasmanian are arriving "Sleepy," and some have been sold as low as 4/-. Arrivals from Tasmania to-day approximate 66,000 cases.

Bananas: 8's and 9's 22/- to 24/-, few higher, per tropical case; 7's 19/- to 22/-, 6's 15/- to 18/-. Citrus:



Lemons, special and standard, local, 96-125 5/- to 7/- gin case, 180-234 8/- to 10/- gin case; inland and Vic., 96-125 6/- to 8/- bush., 180-234 10/- to 12/- bush.

Mandarins: Small quantities of new season's fruit are appearing. Small Imperials, 5/- per half case, and Parker's special 10/- bush. They are, however, still sour. Navels: New season fruit still green and in weak demand at 8/- bush. Second crop Valencia's, 6/- to 8/- bush. case, inferior 3/- to 5/-. Grapefruit, 8/- bushel. Cust. Apples, 1,819 half cases for the week, 4/- to 8/- half case. Grapes: Black Muscat 3/- to 7/-, Cornichon 4/- to 7/-, special to 9/-, Doradillo 2/- to 4/6, sherry 3/- to 5/-, O'Hanez 4/- to 6/6. Quinces are arriving from Vic. and South Australia, some showing signs of over maturity, 9/- to 10/- bush., inferior to 3/- and 4/-; Persimmons, 1/- to 3/- half case; Pineapples, 9/- to 13/- tropical case, few to 16/-; Passion Fruit, 5/- to 7/- half case, special to 9/-.

#### Victoria.

Melbourne (29/4/32).—Fruit consignments continue light, and prices generally show an increase: Bananas, best lines, being quoted up to 30/-. (Excepting where otherwise stated, the quotations are at per bushel case.) Apples—Eating, Tas., Jons. 6/- to 8/-, Del. to 9/-; cooking, Five Crowns 6/- to 8/-, Grannys to 9/-; Figs 8/- to 12/-. Grapes—Ohanez 10/- to 12/-, Doradillos 8/- to 10/-, Waltham 12/- to 14/-. Oranges—Val., Northern districts, 84-96 5/-, 112 7/-, 126 up 8/- to occasionally 10/-, inferior lower; Mildura and Murrabit, standard unwrapped, 126 up to 14/-, odd sales 15/-, best counts; special Mildura and Murrabit wrapped, 17/-. Lemons—Average standard, 180-248 to 9/-, odd lines to 10/-, small lines difficult to clear to 5/-. Strawberries, 6d. to 10d. a punnet; Pears, culinary 3/- to 5/-, dessert, Packhams 6/- to 8/-; W.B.C. 4/- to 6/-. Quinces 4/- to 6/-; Bananas, Queensland, green 6 to 20/-, 7 to 22/-, 9 and 8 24/- to 30/-; Pineapples, 14/- to 16/-; Passion Fruit, 10/- to 12/- local; Melons, Water 3/- to 5/- a dozen, Rock, Honeydew to 6/- a case, preserving 4/- to 9/- a dozen; Tomatoes 4/- to 6/-; Cucumbers 2/- to 3/-.

The Melbourne market manager of the Federal Citrus Council of Australia reports sales were as follows:—Vals., average standard grade, large size to 5/-, medium size 7/- to 10/-, selected unwrapped lines to 14/-, best counts, with odd sales to 15/-; few selected Mildura and wrapped Murrabit lines to 17/-; Lemons, average standard grade, counts 180-248 to 9/-, 300 counts to 5/-, selected lines to 10/-.

#### RETAIL TRADE COMMENTS.

During April there has been very little activity in the retail fruit trade, which consequently reflects back to both growers and wholesale merchants alike, and now, with the approaching wintry conditions, improvement cannot be expected for some time.

The market has been well supplied with most varieties of fruit in season, and prices have been reasonable, but the purchasing power of most people is limited. Retailers are not purchasing Apples in quantities this year as they find the keeping qualities of all kinds not up to the standard of other years, especially Jonathans and Rome Beauties. Good Pears are rather scarce and Quinces are almost unobtainable at present. The wet weather has affected the Grapes and most retailers will welcome the end of the season.

Pineapples are still fairly plentiful, but Bananas have been a trifle lightly supplied. Lemons are coming along more freely, and prices are easing.

As regards the new season's Oranges, growers would be wise to refrain from forwarding them until they are matured, as season after season many consignments arrive in Melbourne which no doubt do a great injury to the citrus trade.

Years back the public welcomed the appearance of Oranges on the market, and possibly were not so fastidious, but now that they are available all the year, the position is entirely different, and when once they get hold of the unripe ones they will not purchase again for some considerable time.

—EDW. W. THOMPSON, Secretary,  
Melbourne & Metropolitan Retail Fruiterers' Association, 16/4/32.

#### Queensland.

Brisbane (22/4/32).—Tas. Apples, Jons. 8/- to 10/- case; DC 6/6 to 8/-, FC 7/- to 8/6, ALX 5/6 to 7/-, LS 5/6 to 7/-, Cleo. 7/- to 8/-, COP 7/- to 8/-, TP 9/-, NYP 7/- to 8/-, Tas. Pears: WN 11/- to 12/- case, WC 7/- to 8/-, GS 8/- to 9/-, Keiffers 5/- to 7/-, BB 6/- to 8/-, BC 6/- to 8/-, Lawrence 6/- to 7/-. For special Custard Apples up to 3/6 was obtained, with a general run of from 2/- to 3/-. Stanthorpe Apples: Jons., small 5/- to 6/-, special 7/- to 9/- case, Del. 6/- to 9/-, King David 5/- to 8/-, Munros 4/- to 7/-, Five Crowns 4/- to 6/-, G. Smith 7/- to 9/-, Winesaps 8/6, Demo. 4/- to 8/-, Persimmons 1/- to 4/- case; Papaws, local 4/- to 6/- per Orange case; Yarwun Papaws, best 9/- to 12/- case, overripe 4/- to 7/-; Grapes, Doradillas 2/- to 5/-, Musc. Black 5/- to 8/-, White 3/- to 4/-, GS 2/- to 5/-, BP 5/- to 6/-; Ascots 4/- to 5/-, Waltham Cross 4/- to 7/-, wet 3/- to 4/6 case, PC 9/- to 12/-, ordinary white 3/6 to 5/-; local Lemons 3/- to 6/-; Grapefruit 3/- to 5/6 half case; smooth-leaf Pineapples, best 8/6 to 10/- case, medium grade 4/- to 6/-, Ripleys 8/- to 9/-; local Navel Oranges from 9/- to 12/- case, Common Oranges 5/- to 8/-; Southern Lemons 10/- to 15/-; special local Passion Fruit 3/- to 5/-.

#### Western Australia.

Perth (22/4/32).—Apples, Jons., flats 3/- to 4/6 (special to 5/6), dumps 5/- to 11/6 (special to 12/6, others from 4/-); Dunn's 3/6 to 4/6, 4/- to 6/6 (special to 7/6, others from 3/6); R. Beauty 3/- to 4/-, 5/- to 7/6

## GROWERS!

Consign your Fruit to:—

## JAMES SLATER

### 21 City Markets, Sydney

Postal Address: Box 36, Haymarket P.O., Sydney.  
Established 1882.

Bank Reference: Commercial Banking Co., of  
Sydney, Haymarket.

Specialist in Strawberries and all other Choice  
Fruits.

All Victorian Fruits and Nuts handled to best  
advantage on the Sydney Market.

### Shipping No. 19 88 Vic. & Tas.

See Paragraph, Page 209.

Stencils, Advice Notes, etc., on Application.

(special to 8/-, others from 4/-); Yates 3/- to 6/6, 5/- to 8/- (special to 11/-, others from 4/-); G. Smith 3/6 to 4/6, 5/- to 7/- (special to 7/3, others from 4/-); Cleo. 3/- to 4/-, 3/6 to 6/- (special to 6/6, others from 3/-); Doherty 3/6 to 4/-, 4/- to 6/- (special to 6/6, others from 3/6); Del. dumps 6/- to 9/6 (specials to 10/6, others from 5/6). Citrus: Val. flats to 9/-, dumps to 14/-; Navels, flats 5/- to 8/6 (special to 9/-, others from 4/6); Lemons 2/6 to 5/- (special to 5/6, others from 2/-). Other lines: Pears, Bartlett, flats, to 7/9; other varieties, flats 2/- to 4/6, dumps 3/- to 8/-, half dumps 1/- to 3/6; Grapes, open, White, 5/- to 8/- (special to 8/6), colored 4/- to 7/6 (special to 9/6, others from 3/6), closed 3/- to 3/6; Tomatoes, metropolitan, 2/6 to 5/6 (special to 7/6, others from 1/6), country 3/- to 5/3 (special to 6/-, others from 2/-).

#### Tasmania.

Hobart. (22/4/32).—Apples, 1/- to 2/6 case; Pears, 1/3 to 7/-; Peaches, 4/6 to 6/-; Quinces, 4/-; Tomatoes, 3/3 to 8/-.

#### NEW ZEALAND.

Dunedin.—Reilly's Central Produce Mart Ltd., report as follows:—Apples, Cox's, choice 8/-, 12/-; Jons., 4/-, 6/-; Del., 5/-, 7/-; Alfs., Lord Wolseley, 3/6 choice, large cookers. Pears, Cap., 4/-; Conference, 6/-, 8/-; Marie Louise, 6/-; W. Coles, 6/-, 8/-; Pines, 22/6. Passions, cases 4/-, 6/-. Quinces, 4/- case. Californian Navels, 55/-. Cal. Lemons, 55/-. Cal. Grapefruit, 40/-. Bananas, choice ripe Niues 18/-, Suva, cases, 22/-. Plums, cases, Coe's Late Reds, 4/-. Peaches, cases, 3/-, 4/6. Grapes, local Hamburgs, 10d.; Oamaru, 8d., 10d.; Gross Colmars, local 1/6 lb.; Australian Grapes 12/6 case. Cape Gooseberries, 5/6 case.

The firm of J. O. Sims, fruit importer and broker, Borough Market, London, England, was commenced in 1896, and has enjoyed steady progress since that date. The Borough Market is stated to be the oldest fruit market in London.

Mr. J. O. Sims strongly advises those engaged in the packing and exporting of Oranges to exercise every possible care and, if possible, to adopt the American package and system of packing. Growers are advised not to ship immature fruit, as such fruit is not wanted, and means injury to the business. The Victorian representatives are F. Cave & Co. Pty. Ltd., Wholesale Fruit Markets, Melbourne.

#### Warning.

"Look out for the worms!" said Aunt Mary to Willie as she handed him an apple.

"When I eat an apple the worms have to look out for themselves," answered Willie.

### BAVE-U Power Sprayer

The best and most reliable sprayer known. Easy to operate—no choked nozzles.

Full particulars supplied with pleasure by the manufacturers

**RUSSELL & CO., Engineers**  
BOX HILL, E.11, VICTORIA.

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is

## The Fruit Centre

SERVING

**Great Britain for the North & Midlands & Continent for all Ports in Northern and Eastern Europe**

Daily sailings provide unrivalled situation for re-export of EMPIRE FRUIT

Specially constructed REFRIGERATOR VANS carry FRUIT direct from STEAMER to inland destinations by EXPRESS TRAINS

**RAPID HANDLING      QUICK DESPATCH      LOW CHARGES**

## London & North Eastern Railway

LARGEST DOCK-OWNING RAILWAY IN THE WORLD

Full information supplied by:—

**AUSTRALIA.**—Burns, Philp & Co. Ltd., 7 Bridge-street, Sydney; 312 Collins-street, Melbourne, and Branches.

**NEW ZEALAND.**—J. A. Redpath & Sons Ltd., 181 Cashel-street, Christchurch, and Branches.



# LION BRAND.



All sprays will be manufactured from the same formulae as previously used by Mr. S. R. Bushnell whilst associated with Jaques Pty. Ltd. Orchardists can therefore rely upon getting the best quality fruit sprays.

Write for prices and particulars to:

**ORCHARD SPRAYS PTY. LTD. 9 Cremorne Street, Richmond**

## Orchard Sprays

We manufacture a complete range of sprays for the orchardist, including:

ARSENATE OF LEAD (PASTE)  
 ARSENATE OF LEAD (POWDER)  
 LIME SULPHUR  
 WHITE OIL EMULSION  
 PREPARED RED OIL  
 BORDEAUX MIXTURE  
 BORDEAUX COMPOUND  
 SPREADERS (SPECIAL)  
 CASEINATE  
 SPREADER (ORDINARY)  
 CALCIUM CASEINATE, ETC., ETC.

## Manchester

## Docks and Markets

*(via the Ship Canal)*

Serve a Population of Twelve Millions  
 in the surrounding area at Less Cost  
 than by any Other Route.

**Insist on Direct Shipment to that Great Market!**

If further information is desired apply to:

**Capt. W. J. Wade**

**8 Bridge St., Sydney**

Telegrams and Cables—"Portoman," Sydney



No. 9 Spraying Machine

The Most Extensive  
 Manufacturers in the  
 British Empire of

## RUBBER STAMPS

Stencils, Marking Devices,  
 Inks & Acme Stamp Pads

We make a Big Range of Special  
**Fruit Case Marking Sets**

We also Manufacture and Supply  
**Spraying Machines**  
 for All Purposes

Let us know your requirements, and we will  
 quote you. Ask for Spraying Equipment Price List

**Excelsior Supply Co. Ltd.**

160 George St. West    278 Post Office Place  
 SYDNEY, N.S.W.    MELBOURNE, VIC.  
 86 Manners St., WELLINGTON, N.Z.

## CASTLEMAINE.

Despite the extremely light Apple crop this season, there was a record number of exhibits in the packed fruit sections of the Castlemaine show held on March 17. In the children's Apple-packing competition for the Gerrard Perpetual Shield there were four entries, comprising six cases each. The schools entered were Harcourt, Harcourt North, Somerville, and Ravenswood South. The shield again went to Harcourt North (97 points), with Ravenswood South second (94 points). The individual prizes were won by Robert Bertuch (Harcourt North) 1, and Trevison Torrens (Ravenswood South) 2. Great credit is due to the Ravenswood South class, they only having been attending the packing classes conducted by the Department of Agriculture for four weeks.

There were 35 entries for the Dan Wuille-Mumford Cup (valued at £15/15/-), which is open to fruitgrowers throughout the State. The cup was won by Mr. E. Martin, of Harcourt, also second and third cash prize of £3/3/-. Mr. Martin, besides being a fruitgrower in the Harcourt district, has been the packing shed foreman of the Harcourt Fruit Supply Society Ltd. for a number of years. A certificate was awarded to Miss Bessie Ellis, a pupil of the Harcourt North State School, attending the Departmental Apple-packing classes, for her splendid exhibit in the Dan Wuille-Mumford Cup section.

## PLANTING FRUIT TREES.

At the old-established nursery of C. J. Goodman, Bairnsdale, Vic., high quality fruit trees are produced in very large quantities. The nurseries cover 200 acres, in five sections, and are situated close to the Bairnsdale Railway Station. The nursery packing shed is served by a private railway siding, which is of value for prompt despatch of orders. The soil is particularly suitable for producing nice fibrous-rooted stock, thus ensuring safe removal to other places. In addition to a full list of deciduous fruit trees, that firm supplies Grape vines, Passion Fruit plants, Loganberries, Raspberries, Strawberries, also citrus trees and nuts.



Orchard spraying with a "Buzacott" power spraying outfit.

## Poultry Notes.

"G.J." (East Malvern) writes:

**Ques.**—Could you give me the ingredients for a good laying mash (wet) for 40 pullets. Also what grain would give best results?

**Ans.**—A simple mixture of meals for making a wet mash would be: Two parts by measure of sharps or very fine pollard and one part of broad flaked bran. To this add 12 per cent. meat meal by weight (5 per cent. of dry bone meal and 5 per cent. charcoal, though not essential will greatly improve this mash). The grain to use in connection with this mash would be two parts of plump wheat and one part of clean cracked maize.

## SULPHUR FOR THE MOULT.

"Subscriber" (Cannington, W.A.), writes:

**Ques. 1.**—Could you tell me how much sulphur I should give the birds during the moult, and how often I should give it to them. Should it be fed in mash or water.

**Ans.**—Use one heaped teaspoonful of sulphur to 20 birds. Mix it with the dry bran and then mix the whole thoroughly through the mash.

## A FORCING RATION.

**Ques. 2.**—Could you also give me a good forcing ration for hens?

**Ans.**—A good laying mash could be made up by measure of ground oats three parts, fine pollard two parts, maize-meal one part. In order to make this into a forcing ration for the purpose you desire, add to the mash the following mixed spices: liquorice 2 ozs., iron carbonate

## 7 Hens Each Averaged 131.3 Eggs Per Month

**L**ITTLE wonder that Mr. H. R. Turner is so enthusiastic in his praise of Karswood Poultry Spice! Read his letter—read how six auction-bought pullets, fed a Karswood ration, laid better than the layers entered in the Hawkesbury College Competition.

"I have nothing but praise for Karswood Poultry Spice. I started using it over seven years ago, and would not be without it now. It keeps poultry in splendid health and greatly increases laying results. It does not force the birds. In June, 1924, I bought seven White Leghorn pullets through the Auction Sales. They were only ordinary quality, but as I was using Karswood Spice, I decided to keep a record of their laying and compare results with the Hawkesbury College Competition, 1924-1925.

"Following are the figures for six months:—

7 White Leghorn Pullets.		Hawkesbury College Competition.	
1924.		1924.	
Average Per Bird.		Average Per Bird.	
July . . . . .	20.7	July . . . . .	19.3
Aug. . . . .	22.7	Aug. . . . .	21.2
Sept. . . . .	23.0	Sept. . . . .	21.9
Oct. . . . .	22.0	Oct. . . . .	22.9
Nov. . . . .	21.5	Nov. . . . .	18.0
Dec. . . . .	21.4	Dec. . . . .	23.3
Average for six months per bird 131.3		Average for six months per bird 126.6	

"I raised about 100 chicks from these birds, had splendid fertility, and no sickness at all."

(Signed) H. R. Turner.

21 Bellevue Street,  
Thornley, 23/2/32.

Try a packet of Karswood on your own birds. Any grocer, wholesaler, or store can supply.

# KARSWOOD

## POULTRY SPICE

Increases egg-production without forcing.



2 ozs., ginger 3 ozs., mustard 2 ozs., aniseed 2 ozs., and fenugreek 2 ozs. Mix these together and add one teaspoonful of the mixture to the mash to every ten adult fowls, four times a week. These stimulants, however, should not be used for the young stock or breeding birds.

#### Average for Second-Year Hens.

**Ques.**—How many eggs do you consider a hen should lay in its second year on an average poultry farm?

**Ans.**—I have no reliable statistics which would enable me to give anything more than a guess at the average number of eggs laid by second-year hens on an average poultry farm.

Mr. J. L. Edgcumbe, of Yan Yean-road, Plenty, has secured an outstanding success at the Burnley Egg-laying Competitions, just concluded, in which ten of his birds laid 2,305 eggs, only 24 of which were under weight. The average was 230.5 eggs per bird.



A Burnley Record was established by this W.L., the property of J. L. Edgcumbe, of Plenty, Vic., which laid 337 eggs (all first grade) in 365 days, after winning the 48 weeks' test with a score of 311 first grade eggs. The bird competed in the wet mash singles.

**Houghton & Byrne.**—Messrs. Houghton & Byrne, Bridge-street, Sydney, specialists in pest destruction in home, garden, and orchard, exhibited a complete white ant nest at their stand at the Sydney Royal Show, held during Easter week.

Many specimens of timber attacked by white ants and borers, were on view, including one of cypress pine, which is supposed to be immune from the ravages of white ants. A fumigating machine for citrus trees was also shown. It has a revolving grinder, which breaks up small briquettes of calcium cyanide, which is then blown under a tented tree in the form of a fine dust.

Rat poisons, insecticides, and timber preservatives are produced by Houghton & Byrne.

\* \* \* \* \*

**"Pysect" for Pests.**—Mr. J. A. Gore, Australian representative for Stafford, Allen & Co.'s pest destroyer, "Pysect," was again at his usual stand at the Royal Show, Sydney, having a table in the enclosure occupied by Anderson & Co. Ltd. Mr. Gore found that an increasing number of amateur and professional gardeners and orchardists manifested an interest in "Pysect," and he received numerous testimonials from persons who had given the material long and exhaustive tests.

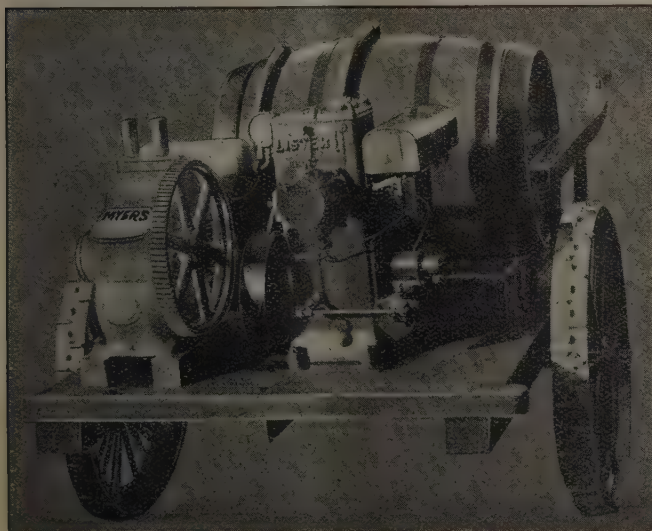
**Yates' Annual.**—"Yates' Annual for 1932" (A. Yates & Co. Ltd., Sydney), is comprehensive and well illustrated. There are lists of flower and vegetable seeds, bulbs, Roses, flowering and ornamental plants, trees and shrubs, fruit trees, climbing plants, also spraying materials, manures and fertilisers, etc.

#### PERSONAL.

A party of fruitgrowers from the Wantirna district recently visited the Mornington Peninsula. The party included Messrs. A. P. and W. Fankhauser, H. Farmilo, F. Baker (manager, Burkeland Orchard), together with Mr. T. E. Butler.

The district cool stores and packing sheds were inspected appreciatively.

Mr. C. H. Tutton, who is largely interested in the timber and case industries, left Australia in mid-March on a visit to Canada and England. He will be attending the Imperial Economic Conference at Ottawa.



## IN A CLASS OF ITS OWN Lister-Myers Spray Outfit

Outfit comprises the celebrated 2 h.p. "Lister" Engine direct-coupled to a "Myers" Self-Oiling Pump.

English Oak Cask, Steel Non-skidding Wheels on Transport.

Suitable for Guns or Hoses.

Free Estimates given for Stationary Spraying Plants.

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**HOBART**

### THE BRISBANE MARKET.

Interesting information concerning the marketing of fruit in Brisbane is to hand, under date April 21, from Mr. Dugald Clark, of Clark & Jesser, growers' agents, Fruit Exchange, Brisbane.

Business on the Brisbane market during the month of April has been rather spasmodic, owing to so much wet weather during the first two weeks of the month. The southern and south-western part of the State were suffering very badly from the effects of the long hot, dry spell, no rain falling since before Christmas, with the result that all vegetables are very scarce.

The market has been well supplied with Apples and Pears during the month. The direct steamer from Tasmania (Huon ports) made two trips, arriving on the 5th with 11,000 cases, approximately on this trip there was 70 per cent. Pears, 30 per cent. Apples.

There was a good demand for the better varieties of both Apples and Pears. Winter Coles being first favorites at 10/- to 12/- per case; other varieties, 7/- to 9/-; Jonathan Apples were in good demand at 9/- to 10/-; other varieties, 7/- to 9/-.

The second trip for the month, this steamer arrived on the 18th. On this trip she carried 16,000 cases; 70 per cent. Apples, and 30 per cent. Pears. Values were on a par with the previous ship. French Crabs, Tasmania's great cooking Apple, have been in rather poor demand so far this season, as our market up to this shipment has been well supplied with Granny Smith Apples from the Granite Belt, Stanthorpe district, Queensland. Supplies of this variety are nearly finished, and this will open up the way for the French Crabs.

Three shipments of Jonathans arrived, on the 1st, the 8th, and the 15th, from North Tasmania, with approximately 4,000 each trip. This fruit was mostly purchased and arrived in rather soft and sleepy condition, especially the two last shipments, and the purchasers lost heavily.

During the month two packets of Victorian Jonathans, "Boomerang Brand," came to hand, and opened up very nicely. They realised 9/- to 10/6.

The Queensland citrus crop is just commencing, but all the districts are feeling the effects of the long dry spell. Some very fine new season's Navels have been on the market from Gayndah. This district is growing citrus second to none in the Commonwealth.

The Burrum and Isis district, with Howard the centre, had a very large showing of Oranges and Mandarins (mostly Emperors), and here the dry weather had the effect of stunting the growth.

They had eight inches of rain in this district in two days, and while late, must be beneficial. This district will be a fortnight late this year to market their crop. Custard Apples from the Cleveland district are quite plentiful and realising 2/6 to 4/- half bushel.

The wholesale fruit trade in Brisbane lost one of their

most energetic and respected members early in the month. I refer to the late William Robson, who for the past ten years was President of the Wholesale Fruit Merchants' Association, and who spared no pains to keep this Association abreast with the times. His loss was very keenly felt, and his position as President hard to fill.

### COOL STORES' CONFERENCE.

The fourteenth annual conference of the Fruitgrowers' Cool Stores' Association of Victoria, will be held this year at Batlow, N.S.W., on May 11, 12, and 13. For some years the suggestion has been before the Association to visit Batlow, and it is pleasing to note that the function is now to be conducted at this progressive fruit-growing centre.

The Batlow packing house and Cool Stores Rural Co-operative Society Ltd., is a member of the Association.

The agenda paper includes items of technical and general interest. Addresses will be given by Mr. C. G. Savage, Director of Fruit Culture (N.S.W.), Mr. H. Broadford, Senior Fruit Instructor (N.S.W.), and Mr. J. M. Ward, Superintendent of Horticulture, Victoria.

### FARMERS' CONVENTION.

The Chamber of Agriculture held its 13th annual Convention at Swan Hill. The President, Mr. W. A. Webb, a well-known fruitgrower, occupied the chair. Conference dealt with matters affecting the welfare of primary producers. There were some splendid addresses by experts. Several resolutions calculated to benefit the fruit industry were carried.

Asparagus growing is being successfully conducted in the peaty soil of the Koo-wee-rup Swamp, Gippsland, Victoria.

The average depth of the peat is three to four feet. In well drained areas, excellent crops are being produced.

## Rockhampton

The starting point for the Great Queensland Central Railway has a population of 30,000, and offers a good market for your fruit.

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MELBOURNE.

## "Fruit World Annual"

Comprehensive review of  
Australian and New Zealand  
fruit industry.

"The Fruit World," Box 1944  
G.P.O., Melbourne.



**Apple Production in Argentine.**—The large increase in the planting of Apple trees in the Argentine was referred to recently by Mr. W. J. Phillips, who has just returned to Australia after 22 years' residence in the Argentine. In 1911 his company had planted 7,500 Apple trees. From that first importation of Australian trees into the Republic the total had grown to 1,500,000 trees.

#### Safer.

The small lad of the family had behaved so badly that punishment of some sort was necessary.

"Jimmy," commanded his mother, "find a switch and bring it to me."

Shortly after the bright young man returned.

"I couldn't find a switch, ma," he replied, "but here's a big rock you can throw at me."

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By special arrangement Fruit, etc., for Sydney, leaving Melbourne Noon Saturdays, is delivered on Sydney Wharf 6 a.m. Mondays, ready for early morning market.

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### "BUY BRITISH" CAMPAIGN.

A bulletin is to hand from the Empire Marketing Board, London, regarding the "Buy British" campaign, which was launched by H.R.H. The Prince of Wales in a broadcast speech in November last.

Over 4,000,000 copies of designs by Mr. Austin Cooper and Mr. T. Purvis have been printed in various forms and sizes, and reports show that the posters have carried the "Buy British" message throughout the length and breadth of the United Kingdom.

Every possible avenue of advertising was used including broadcasting, posters on cars, trams, sports ground, aerodromes, factories. Posters were also sent to 25,000 schools; over 12,000 posters have been displayed on the premises of the railway companies of Great Britain and Northern Ireland. Many posters have also been displayed at the Navy, Army and Air Force Institute, and displays have been made on piers and harbors.

The Board issued two special leaflets for the campaign. One is entitled "Why every woman ought to 'Buy British'"; the other is a list of Empire products giving their countries of origin. Copies of both these

# Black Leaf 40

## Death to Aphis (Plant Lice) and Other Insects

Aphis and other insects are common enemies of the orchardist and gardener. Protect your trees, vines and plants with "Black Leaf 40."

### In the Orchard and Garden

"Black Leaf 40" is recommended for killing woolly aphis, apple aphis, peach aphis, aphis on roses, other flowers and vegetables, mussel scale (young), Harlequin fruit bug, holy or cross bug, oleander scale (young), San Jose scale (young), red scale (young), red mites (Summer), rutherglen bug, pear and cherry slug, thrip, fine scale (young), pea mite.

### In the Poultry Yard

Paint the roosts lightly with "Black Leaf 40" just before the birds go to roost. Body-lice will be destroyed while the flock roosts. To help prevent mites from attacking fowls, tie or tack a piece of heavy cloth around ends of roosts and roost supports and saturate with "Black Leaf 40." Spray inside of house with "Black Leaf 40," three tablespoonsful to a gallon of water to which soap has been added.

"Black Leaf 40" has the endorsement of Agricultural Colleges, Experiment stations and orchardists. It is the World's leading aphis specific. It also kills the young larvae of many chewing insects when sprayed upon them so as to wet their bodies.

### Kills By Contact and By Fumes

"Black Leaf 40" has a dual action. It kills plant insects both by fumes and by contact. This double-killing action makes "Black Leaf 40" unusually effective in insect control.

### Paint Roosts . . . Kill Poultry Lice

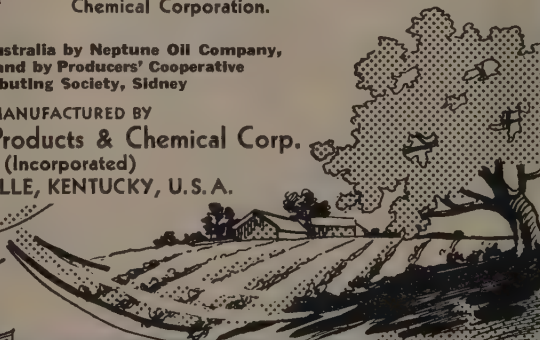
Poultrymen find that if they paint the roosts lightly with "Black Leaf 40" the lice on the birds are killed. The heat from the birds' bodies releases fumes which destroy lice, as the flock roosts on perches.

### Genuine "Black Leaf 40"

"Black Leaf 40" is registered by us in Australia and New Zealand as a Trade-Mark and Brand. Users are familiar with the red labelled packages and the black leaf design prominently displayed thereon. Beware of imitations. Insist upon genuine "Black Leaf 40," made only by Tobacco By-Products & Chemical Corporation.

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leaflets can be obtained free of charge on application to the Empire Marketing Board, 2 Queen Anne's Gate Buildings, London, S.W.1, England.

#### Brave.

First Boy: "My father is a brave man, he is. He killed five lions and an elephant in Africa single-handed."

Second Boy: "Heck, that's nothing. My dad bought a new sedan when mamma wanted a coupe."

#### Judged by Taste.

Mark Twain refused to play golf himself but he once consented to watch a friend play. The friend was rather a duffer. Teeing off, he sent clouds of earth flying in all directions. Then, to hide his confusion, he said to his guest:

"What do you think of our links here, Mr. Clemens?"

"Best I ever tasted," said Mark Twain as he wiped the dirt from his lips with his handkerchief.

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"The Fruit World," Box 1944  
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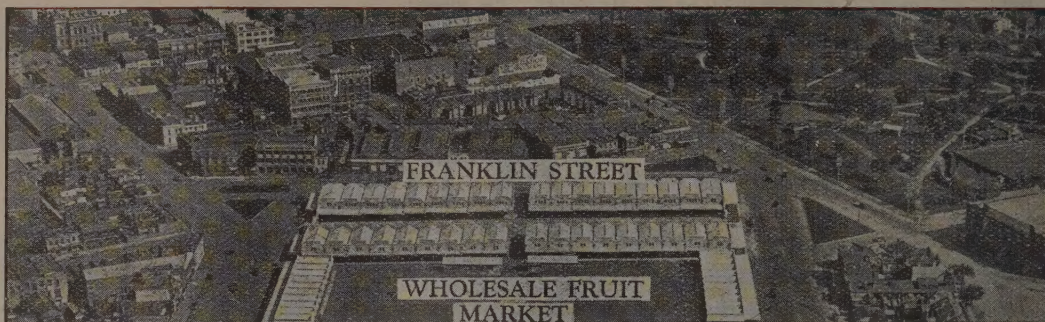
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